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ORIGINAL ARTICLES :

Australia : Material Culture. **Schuster**

Designs Incised on Pearl Shell from North-Western Australia and Tanimber. *By Carl Schuster, Ph.D.*

Among pearl-shell ornaments with " key or meander " patterns, said to be characteristic of the Karadjeri tribe around La Grange on the Kimberley coast of North-western Australia,[1] is a specimen illustrated by Mountford and Harvey,[2] here reproduced as Fig. 1. We venture to see a similarity between the scratched design of this pendant and the design incised on a spoon of nautilus shell from the island of Tanimber in eastern Indonesia, Fig. 2.[3] The darkening of design areas by means of cross-hatching and other forms of *hachure* is characteristic of the Tanimber spoons, as it is of the particular type of Australian pearl-shell ornament here in question. The designs of the Tanimber spoons generally include pairs of human figures arranged in various attitudes. In the example here illustrated, two legless bodies, evidently conceived as facing in opposite directions, are joined by a sinuous common torso. The question may be asked whether the complicated " meander " incised on the Kimberley pendant, Fig. 1, might not be the debased version of a Tanimber design of the type of Fig. 2 ; i.e., whether it might not be derived from a pair of human torsos arranged to form a conventional pattern somewhat like those of the picture suites in our card games, in which the figures always face in the same direction, no matter which way the card is turned.

By way of support for the possibility of relationship between these two designs, we cite the following statement about native trade between Indonesia and Australia : " The Malays from

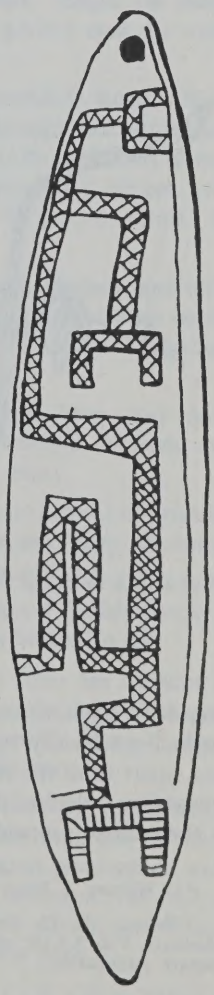


Fig. 1.

[1] Elkin, as quoted by F. D. McCarthy, " ' Trade ' in Aboriginal Australia, and ' Trade ' Relationships with Torres Strait, New Guinea and Malaya," *Oceania*, Vol. IX, 1939, p. 97.

[2] C. P. Mountford and Alison Harvey, " A Survey of Australian Aboriginal Pearl and Baler Shell Ornaments," *Records of the South Australian Museum*, Vol. VI, 1938, p. 122, fig. 4, D (from Bernice Bay).

[3] After the original in Amsterdam, Indisch Instituut, ethnographical section, A. 2226 *a*.

Makassar (Celebes), Koepang (Timor) and Timor-laut [i.e., Tanimber], from an early date, made yearly voyages down through the East Indian Islands and through the Arafura Sea to the northern coast of Australia . . . They made these long trips to Australia because they wanted to acquire the native pearl-shell, pearls, tortoise-shell, trepang and sandalwood, found all along the shores of north Australia."[4] Though we do not propose that *all* " key or

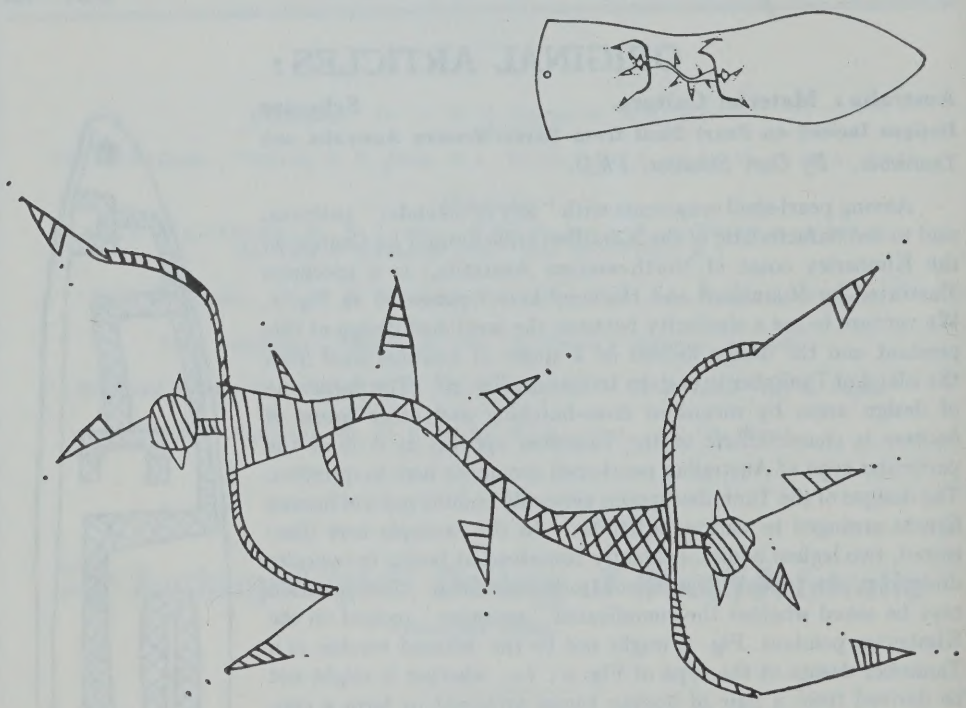


Fig. 2.

meander " patterns on the Kimberley pendants are necessarily derived from human figures inspired specifically by models from this one Indonesian island, it should be kept in mind that, apart from the striking similarity of material and technique in this particular instance, " meanders " derived from series of human figures facing in opposite directions and joined by their torsos are widely characteristic of Papuo-Melanesian art.[5]

[4] L. Warner, *A Black Civilization*, 1937 (appendix), as cited by McCarthy, *op. cit.*, p. 191.

[5] See, e.g., K. Th. Preuss, " Künstlerische Darstellungen aus Kaiser-Wilhelmsland," *Zeitschrift für Ethnologie*, Vol. XXIX, 1898, p. 80, figs. 1-10, etc. (The present writer plans to develop this theme in a separate publication.)

C. SCHUSTER.

Africa : Ethnology. **Goodwin**

An Assessment of Certain Bushman Affinities.[1]

By A. J. H. Goodwin, M.A., F.R.S.S.Afr., Senior Lecturer in Ethnology and Archæology, University of Capetown, South Africa.

In 1923 the University of Capetown Ethnological Museum received seven implements from Mr. G. G. Holmes of Tasmania. They are numbered 23/117 to 23/123, and the last five in the series were found by J.V.C. Possibly these provide the only comparative material we have in this country. While it would be redundant to illustrate these in the present paper, I think a brief description for purposes of identification is essential.

23/117. Coal River, east of Lake Tiberias. Indurated shale. Cortex forms most of outer face of flake. The butt is plain (not facetted). The bulb of percussion is marked and the angle of cleavage is obtuse. The shale is unpatinated but dulled. Edges are sharp. This has been fashioned into a circular scraper measuring $7{\cdot}5 \times 6{\cdot}5 \times 2{\cdot}5$ cms. by even, steep trimming.

23/118. Blackman's River, one mile west of Oatlands, on the Interlaken Road. Black indurated shale, patinated to a dull fawn ; the black shale shows through this skin where damaged. The edges are fairly sharp still. Butt probably intended to be plain, but formed by two cleavages which supplied the striking platform. The cleavage angle is obtuse, even wide. This has been formed into a circular scraper measuring $8{\cdot}0 \times 5{\cdot}0 \times 2{\cdot}5$ cms., by rather flat pressure-flaking showing marked ability.

23/119. Brighton. A grey-green indurated shale or perhaps a surface quartzite, patinated to give a marked though thin skin. The striking platform is hardly visible on the flake, but consisted of brown cortex. This has been fashioned into an endscraper ($5{\cdot}0 \times 4{\cdot}3 \times 0{\cdot}9$ cms.).

23/120. Bellerive. Old rose surface quartzite. The striking platform may have been roughly prepared or may be an irregular cleavage. The material is fresh and unpatinated. It has been made into an endscraper ($5{\cdot}4 \times 3{\cdot}0 \times 1{\cdot}0$ cms.).

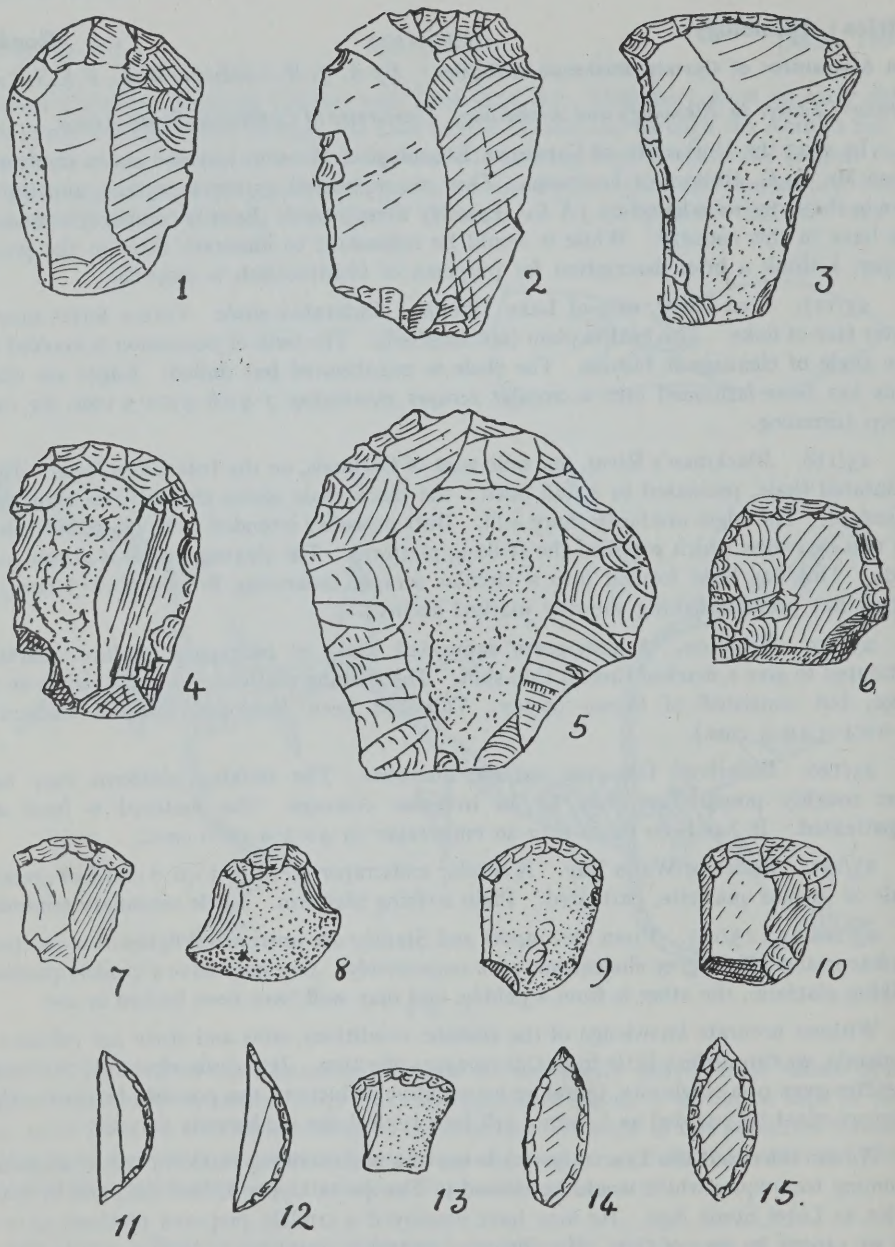
23/121. Prince of Wales Bay. A similar endscraper ($5{\cdot}2 \times 3{\cdot}3 \times 0{\cdot}8$ cms.) of greenish shale or surface quartzite, patinated. Plain striking platform. Little secondary trimming.

23/122 and 23/123. From Devonport and Stanley are untrimmed flakes of a quartzitic sandstone and a light grey chalcedonic rock respectively. One may have a crudely prepared striking platform, the other is from a pebble, and may well have been broken in use.

Without accurate knowledge of the climate, conditions, sites and stone age cultures of Tasmania, we can deduce little from this meagre collection. It is quite obviously not representative even of a single site, therefore no negative deductions can possibly be made, while inference must be guarded as I cannot tell how typical the implements may be.

We can infer that the Tasmanian made use of a plain-striking platform and of secondary trimming techniques which would be classed in Europe as Upper Palæolithic, and in South Africa as Later Stone Age. He may have employed a crudely prepared platform as well, but we cannot be sure of this. His choice of materials (presumably lacking a true flint or an obsidian) was identical with those of Later Stone Age Man in South Africa, and I have presumed to use the same wide terms for these materials that we employ here.

[1] This paper was read before Section F of the biennial meeting of A.N.Z.A.A.S. held at Hobart in January, 1949.



Figs. 1-6. *Smithfield B tools, mainly from Griqualand West and the Karoo.*
Figs. 7-10. *Smithfield C tools, from similar areas.*
Figs. 11-15. *Wilton tools from the Cape Peninsula (single and double crescents and a small endscraper).*

Whether it is the result of South Africa and Tasmania being the end points of a single vast curve of distribution, whether it is the product of the use of similar materials, or whether man's tools throughout the world show a fundamental similarity, the fact remains that each of the five tools described briefly above can be duplicated a thousand times in South Africa. In a land so rich in man's prehistoric remains this is not extraordinary. What is remarkable is that the closest similarity, the most exact duplication, the nearest affinities all lie within a single South African cultural group. More curious still, the same range of patination (implying though not proving age) is represented, though here the extreme conditions imposed in the summer rainfall area make patination more intense.

The South African parallels lie within the Smithfield Culture of the Later Stone Age,[2] a culture I named some twenty-five years ago from the work of Dr. Kannemeyer of Smithfield in the eastern Orange Free State. The culture is somewhat more complex than was at first thought. We have at least three phases. The first is called Smithfield A, an early development that has the two-inch (5 cm.) circular scraper as a typical tool. This was followed by a more prolific phase B that covers the Free State and the upper Vall and upper Orange River Basins with tens upon tens of thousands of implements. Most typical is a two-inch duckbill endscraper, but the circular scraper still persists, often reduced in size. This phase prevailed in large areas until last century. The Smithfield C we shall discuss a little later.

The affinities of the Smithfield B suggest that it grew out of the Lower Capsian culture, a culture that at one time extended from Spain to Kenya on the equator in East Africa. With the drying up of the Sahara in and following the Buhl Stadium, the cultural area was split, so that those peoples to the south spread into Africa, while those to the north were replaced by the expanding Neolithic peoples from the Fertile Crescent, eventually deteriorating into the midden peoples of Portugal.

Whatever their fortunes may have been further to the north, once they reached the basins of the upper Orange and Vaal they encountered two important rocks. The one was igneous dolerite, the other was shale, indurated into a black porcelain by contact with volcanic action. The distribution of these two materials is very clear and is usually indicated by a limiting line on geological maps. Their cultural value was enormous. Smithfield B man settled here for long ages and quickly perfected his tool-making techniques in indurated shale, so that the same tools occur side by side with patination varying from grey to a mere dulling of the slight lustre of newly-flaked shale, indicating long periods of sojourn without development, but marked rather by consolidation of culture into a more clear-cut local pattern.

The dolerite seems to have been too coarse-grained for the making of small tools, but the preceding men of our Middle Stone Age seem to have picked or engraved simple pictures of animals by cutting through the thick outer skin of patina to varying depths. Smithfield man took up the idea, and continued the simple art until it ends with crude pictures of men with guns on horseback and even nine-men's-morris boards of European origin.

I was able to show at Vosburg[3] (between Britstown and Victoria West) how this " locality tradition " was capable of surviving various cultural phases, kept alive by the sheer desire

[2] A. J. H. Goodwin and C. van R. Lowe, " Stone Age Cultures of South Africa," *Ann. S. Af. Mus.*, XXVII, 1929, pp. 151-234, illust.

[3] A. J. H. Goodwin, " Vosburg : Its Petroglyphs," *Annals S. Af. Mus.*, XXIV, 4, 1936, illust.

to imitate older drawings on the rocks, and without direct cultural contact, so that from the Middle Stone Age it extended even into the European period of colonization.

The Smithfield culture was one of the two stone age industries associable with the folk we call the Bushmen to-day. This is not the only culture linked with them, and we shall see that the picture is more complex than might at first appear. The other associable culture is the Wilton.

The Wilton culture[4] seems to have originated in the Upper Capsian of North Africa, and is thus related in source to the Smithfield. It has since travelled down the length of Africa, probably impelled by the final phases of the drying up of the Sahara. Sites occur in Kenya, in the Rhodesias and in South Africa. Here and there we find variation, but there is a recognizable unity from the Equator southwards. This is essentially a true microlithic culture using small tools that would presumably be mounted for use. The lunate or so-called crescent was the most common, but here and there in the south we find a development that includes the so-called double crescent—or to use the terminology of modern jewellery, the marquise-cut stone. It is boat-shaped, measuring perhaps 2·0 cms. in length and 1·0 cm. wide.

We find a queer lithological factor affecting the position. The indurated shale which appealed so strongly to the Smithfield folk seems to have been too brittle for small tools, so that the Wilton microliths are made almost exclusively from semi-precious stones such as agates, chalcedonies, etc. The larger part of the indurated shale areas show no Wilton tools at all, or an isolated specimen may appear now and then, suggesting an isolated tool lost in the dry and unattractive shale areas.

These Wilton folk were essentially the painters of South Africa. Although there are the expected fashions and modes in our paintings, there is no clear evidence that cave-painting preceded the Wilton period in our shelters ; the tradition seems to have come down Africa with the Wilton folk and to have ended with the little people who represented this culture a century or so ago, and who are to-day called the Bushmen.

Though the Wilton tools could seemingly not transgress into the shale areas, the Smithfield folk entered the Wilton preserves and adopted the materials used by the inhabitants. This shows that the two groups were probably not antagonistic but recognized their ancient identity of origin. The fusion gave rise to a partly regional phase, the Smithfield C. Both crescents and geometrical tools fail to appear, but the tool-types that were typical of phase B are now made in miniature, generally just half the original size, while painting becomes the channel of artistic expression, at times reflecting the art and choice of subjects more typical of the pecked and engraved dolerites.

Further cultural and racial waves followed mixing with or impinging on these two widespread cultures. The cattle-keeping Hottentots are the eventual products of such a movement, physically and linguistically akin to the Bushmen, though not identical with them in either, and having a more advanced mode of subsistence. Perhaps the first pottery was introduced by the Hottentots (though crude fragments occur sporadically in association with the Smithfield B) but we are not yet certain of their implements. It is possible that they brought in polished tools that in Europe would be termed Neolithic, as a few such

[4] *Loc. cit.*, pp. 251-276, illust.

examples are known. In many instances they seem to have had a Wilton culture or tools derived from this, probably a result of fusion.

The Hottentot was followed by the iron-using Bantu-speaking Negro, and finally the European entered from the south. These migrations have all confined the Bushman more and more to the dry lands of the Kalahari, not his natural habitat, but forced upon him by the pressure of higher cultures. Here he is faced by hard conditions rendered even harder by the presence of game-laws.

There is obviously no evidence to link the peoples of Tasmania with any culture here save the Smithfield B if we judge from the handful of tools at our disposal. Perhaps there are microliths in Tasmania that have only been recognized in the past twenty years, or polished axes that connect with those of our Neolithic elements here. My knowledge of Tasmanian tools is regrettably slight, too slight to suggest any affinities beyond the superficial similarities cited above.

On the physical side the contrast between the Bushmen and the Tasmanian is probably great. I shall shortly enumerate the most striking and typical characteristics of our Bushmen, summarized from the observation of over a hundred skulls, and not merely from individual chance attributions. I shall not attempt any comparison or contrast with the Tasmanian (we have a single authentic skull in the University collection), for I know from frequent experience how sadly erroneous such comparisons may be in the absence of statistically comparable numbers of well authenticated specimens.

Physically the Bushman is a race unto himself. The type is readily recognizable and has been variously described as San or Khoisan. It occurs, as one would expect, in various combinations known to anthropologists as Bush-Boskopoid, Bush-Hottentot, Bush-Bantu, etc., terms that have ousted the once popular medley of races known as Strand-lopers. Boskop represents an early type of man, possibly an element present among the original Hamitic migrations that eventually gave us the Hottentot.

The fundamental criteria in the Bushman skull may be expressed as follows. Looking down on the skull from above, the cranium is of medium length and is markedly pentagonoid, the two parietal bones showing a marked bulge in the region of the fœtal centres of growth. The two cheekbones are frequently visible from above as the frontal bone is narrow. There is a complete absence of any ridges above the eyes, and the forehead rises vertically, then turns sharply back at the hairline to give a flat crown to the head. The face is short, wide and vertical, coming down to a small palate. The jaw is similarly small, giving a typical triangular look to the lower face with its high cheekbones. The ramus of the jaw is remarkably short. The nose is wide and flat.

The stature is short, averaging less than 150 cm. (five feet), and therefore the small brain capacity of 1300 ccs. accords with the stature, and is not less than we would expect in a small European.

The small face, vertical forehead and normal cranial capacity all make the skull infantile. Curiously enough, man's whole evolutionary story is linked with this tendency for each succeeding species to fix the characteristics of the infant as the pattern for the new adult. If this rule is absolute, the Bushman is not primitive but represents a Peter Pan race, a race that never grew up. He is thus curiously advanced, perhaps the most highly evolved of the human species. If this is so, his evolution seems to have carried him into a " pocket," so

that, like the Tyranosaurs of old, he has over-specialized in the evolutionary sense, while we more ordinary men have retained the malleability and adaptability of the less specialized forms.

The living Bushman has a khaki skin, and he frequently shows the Mongolian fold at the inner corner of the eye. The ear is lobeless, and his hair is of the extreme woolly type, so much so that the hairs seem to cluster into isolated " peppercorns," leaving apparently bare skin between. The hair never grows long. There is a tendency to a fatty development of the buttocks in the women, that has frequently excited the interest of scientists. The skin wrinkles at an early age, so that a Bushman of forty looks like a man of sixty, and any Bushman of sixty is described by the local press as " well over a hundred."

The present tendency to mix with neighbouring tribes of different race is probably the result of cultural inferiority, so that concubinage and serfdom are imposed by more advanced peoples.

A study of skeletal remains shows that the death-rate in the old days before the European came was very high, and the infant mortality rate was appalling. There is little reason to believe that the extreme age of the Bushman ever exceeds the century and there is every reason to suspect that the expectation of life, even for a grown youth, is very low. We have no figures, but long years of excavation and contacts with skeletal remains convince me that this is so.

So far as affinities are concerned, the double burial at Grimaldi on the Franco-Italian border is often quoted as showing some relationship with our Bushmen. In 1931 I went to great trouble to see the original skulls and can affirm that the old woman shows no similarities whatsoever, while the youth shows only such similarities as may be attributed to the skull conformation of youth. There is thus no reason to suspect any physical relationship. The Central African Pygmy is often coupled with the Bushman. His heavy face, protruding jaws, receding forehead, ungainly form and proportions are all in marked contrast to the characteristics and fine miniature proportions of the Bushman. The skin colours are different, and all that is held in common is the woolly hair. Even the way of life shows a contrast. The forest Pygmy is essentially a vegetarian, turning to small forest game for meat food. The Kalahari Bushman is a meat-eater, a hunter of big-game, turning to the relatively sparse vegetable foods for a part of his fare only—a part left mainly to women and children. Here a gorge of ostrich egg or a feast of the soapy tsama melon (*citrullus* sp.), or an occasional wild bees' nest provides the relaxation from a diet of antelope, zebra, and other game.

The Australoid peoples show no affinities at all with our Bushmen, though one remarkable Australoid skull has been described from Philippi, seven miles from Capetown.[5] So identical is this specimen to the Australian Blackfellow that one might almost allocate him to a particular Australian tribe. But this is no Bushman. Less clear Australoid characteristics have been found by Broom among a race he calls the Korana, after a tribe of Hottentots on the Lower Orange River. Presumably such Australoid types belong to an early (probably Middle Stone Age and therefore developed Mousterian) dispersal about the Indian Ocean, south of the Himalayas. It is to be expected that they would show themselves sporadically as pure strains, but would leave only diluted traces in a few surviving and therefore distant descendants.

[5] M. R. Drennan, *J. Roy. Anthrop. Inst.*, LIX, 1929.

Believing that a study of form is more important than the most laborious comparison of anthropometric measurements and realizing that comparison needs large numbers of authenticated specimens, I refrain from contrasting or comparing the Bushman and the Tasmanian. Current literature shows the Tasmanian as obviously related to both Negroid and Australoid stocks, and we can take it that this implies characteristics contrasting strongly with those of the Bushman as enumerated above.

Conclusions

1. Within South Africa the Bushman can be linked with both the Smithfield complex and the Wilton culture, which showed themselves capable of uniting in certain areas to provide the Smithfield C phase, partly regional and largely divorced from the use of indurated shale, but linked with the tradition of Cave Painting started by the Wilton folk.

2. The Bushman is a racial group with no apparent affinities elsewhere, and there is no evidence to link his physical type with those of Australia or of Tasmania.

3. Similarities discernible between Smithfield B implements and certain Tasmanian specimens might be due either to the general affinities that exist between all recent stone age tools, or to similarities evoked by likeness of material and way of life, or to an early diffusion of culture about the Indian Ocean south of the Himalayas.

4. Australoid types in South Africa suggest an even earlier spread, evident only through diluted traces that survive to-day.

A. J. H. Goodwin.

Melanesia: Social Anthropology. **Guiart**

"Cargo Cults" and Political Evolution in Melanesia. *By J. Guiart, Ethnologist, Institut Français d'Oceanie, New Caledonia.*

Having recently read a very interesting article by Mr. Cyril Belshaw entitled "The Significance of Modern Cults in Melanesian Development,"[1] I feel constrained to offer some criticism of the author's conclusions, at least so far as they concern the two areas with which I became acquainted in 1947, i.e. New Caledonia and the New Hebrides.

Mr. Belshaw's contention is that Cargo Cults have thrived in "half way" native communities, that is, in groups already well advanced in the acculturation process but not yet really familiar with the white man's culture. As I know them, the facts do not entirely support this opinion. Moreover, as an explanation, it is not sufficient.

The Naked Cult, Espiritu Santo

There are four instances of this movement, comprising the murder of Mr. Craig and his wife in 1908, the murder of Mr. Clapcott in 1923, the Runovoro School affair of 1937, and the Naked or "Malamala" cult of 1947.

I have no special details of what happened in 1908. The next three occurrences show closely identical characteristics. The same bush and heathen people were implied. A ship

[1] *The Australian Outlook*. Vol. IV, No. 2, Sydney, 1950, pp. 116-125.

was to bring all kind of goods for the natives. She was to land close to Tasimalum, south-west Santo, where Clapcott was killed. More recently a Mr. Wood is said to have been asked to quit Cape Lisburn, as he was not to be allowed near the ship's landing place.

The missionary J. G. Miller published a paper[2] in 1948, giving some other features which he believes are recent, and including (*a*) villages to be destroyed and replaced by communal houses, (*b*) corpses to be exposed on a wooden platform in the bush instead of being buried beneath the floor of the deceased person's house.

This last order is not new. Administrative reports of 1937 already mention such changes in the ways of disposal of the dead. The origin of communal houses may be earlier still. Tom Harrisson[3] published a map in which two shaded areas indicate the occurrence of "communal houses." The southernmost area corresponds exactly with what Mr. Miller says of the actual extension of the Naked Cult.

Other features have still to be confirmed; at least, as to their being new. The only certain evidence points to the replacement of the "white ancestors" by Americans in the prophecy of the ship's coming; and, no less important, to a better organization of the movement by a drastic divorce of believers from non-believers.

The John Frum Movement, New Hebrides

This movement has gone one step further in beginning to organize non-co-operation with European rulers, particularly the Missions.[4] In spite of a strong administrative repression, John Frum kept its ground and even proselytized in northern and central New Hebrides (Malekula, Ambrym, Paapa, Epi). In all these islands, the bushmen were practically left untouched. Except in Tanna, where other Christians followed suit, the adherents of the cult came almost entirely from among the Presbyterian following, and were at times obeyed by all their fellows. In all of these cases the blame can be laid on the Presbyterian missionary methods as a result of which the native social organization has been entirely disrupted, new Christian villages having been established under Christian chiefs, and undue influence brought to bear on the administration.

Lifu, Loyalty Islands

In 1945, after the war, a communist movement was launched among the natives of New Caledonia. It spread very quickly but subsided as soon as the patent dishonesty of the main European promoters was unmasked. In Lifu, the local propaganda took a specific "Cargo Cult" appearance: a ship was to be sent from France by the metropolitan Communist Party to bring the native communists all the necessary means to gain equality with the whites, and docks were built to receive the cargo.[5] I am of the opinion that the natives are

[2] J. G. Miller, "Naked Cult in Central West Santo," *J.P.S.*, Vol. LVII, No. 4, 1948, pp. 330-341.

[3] See Tom Harrison, *Savage Civilisation*, London, 1937, pp. 271, 370 and 381. His description is confirmed by official reports as late as 1937.

[4] Patrick O'Reilly, "Prophetisme aux Nouvelles-Hébrides. Le Mouvement John Frum à Tanna," *Le Monde non Chrétien*, n.s. 10, 1949; and Jean Guiart, "Le mouvement John Frum à Tanna (Nouvelles-Hébrides)," to be published.

[5] I am originally indebted for this indication to my friend M. Lenormand, Secretary of the Société d'Etudes Mélanésiennes in Noumea.

entirely responsible for this " deviationism." Only a part of the island was affected by this movement, that is, a region where the authority of chieftainship has been lessened through the occurrence of two successive regencies.

New Caledonia

There is not any outward forms of the " Cargo Cult " in New Caledonia. In Noumea, the trend is towards classical politics : equality claims, strikes, and so on.

In the interior, older disturbances still parallel the more modern political evolution. They were at their climax in 1940 and still go on, under cover,[6] both in the backward north of the island (Poum, Balade, Pemboa) and the more sophisticated centre (La Foa, Canala). Magic is the principal theme following two variants : (*a*) a recognition of its worth as a specific native source of power, as opposed to the technical science of the west ; and (*b*) the search and exposure, by divination, of all sorcerers and the destruction of the material means of their evil charms.

This is a reaction against the cult of the " red god " (*doki*), introduced from the Loyalty Islands in 1900,[7] which had deteriorated into sorcery, partly under New Hebridean and Asiatic influences. Many native leaders regarded it as being the principal cause of the depopulation of the island. This is a general movement, in which heathens, catechists and pastors are alike involved. The two principal centres are linked through correspondence and the sending of messengers.

Between them, the district of Houailou stood, until last year, almost completely for communism. This can be ascribed to pre-war errors, both of the Administration, which destroyed the traditional chieftainship, putting in its place three " stooges," and to the Protestant mission, which previously had almost complete religious control of the valley.

We shall now try and consider a general conclusion. In the background of these movements we do not find any formal similarity. The social basis is in each case different. It can be Bushmen or Christians of long-standing. *The common element is a lack of balance in the actual native society*, the traditional frame having been undermined or destroyed, through the failure of administrative or missionary methods or even simply through depopulation (Santo). Because they were imposed upon the people, brand new native officials have never really been accepted and have failed to identify themselves with the interests of their fellows. A reaction was inevitable. It has created with the passing of time more and more organized and efficient structures. For the present, I cannot see any reason why this evolution should stop.[8]

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[6] Under the fear of administrative repression.

[7] Maurice Leenhardt, *Notes d'Ethnologie néo-calédonienne*, Paris, 1930.

[8] In Tanna, christian chiefs who remained influential were those who went wholeheartedly into the John Frum movement. The same thing happened with the Vailala madness in Papua, where the movement was used by local policemen to strengthen their position. Incidentally, the study of " Cargo Cults " should not be separated from the study of the more typical nationalist movement. They both have a common base.

Jean Guiart.

Australia: Social Anthropology. **Berndt**

Aboriginal Religion in Arnhem Land.[1] *By Ronald M. Berndt, Research Worker, Department of Anthropology, University of Sydney.*

I am going to discuss Arnhem Land Aboriginal religion in relation to one or two cults belonging to the north-east and north-central part of that region. I am not going to discuss magic in this context, for here I am interested primarily in indigenous religious manifestations. Magic, using the term very loosely, is only incidental to Aboriginal religious practice and belief, and although we are aware that magic permeates it, it does so no more than it does any other great religion.

I am not at present concerned with comparing indigenous Aboriginal religion with Christian practice. It is true that there are many points in common, as Dr. Capell has already pointed out, but indigenous belief and faith must stand on their own legs, so to speak, and their real ingredients cannot be really understood in relation to another religion, particularly not an alien religion such as Christianity. There *are* points in common—for that matter similarly related elements exist in all great religions—but what concerns us here is the fact that great religions have existed and do exist in their own right in Aboriginal Australia. These religions too are more or less of indigenous inspiration but we are not here discussing the possible origins of that inspiration.

My plan, then, is to discuss briefly first the religious background of one area, for example, Yirrkalla, and then to discuss rather more fully the Kunapipi cult. It should also be remembered that it is possible to deal with different aspects only very sketchily. Shortness of time does not permit me to dwell in detail on any specific point.

Yirrkalla society, like other Australian Aboriginal communities, must forage for food; and the supply of this depends on the environment. On the north coast and rivers of Arnhem Land, food of many varieties is available in great quantities. However, its constant supply is believed to depend on the rhythm of the seasons, upon the mythical characters of the Eternal Dreaming Period, and on the performance of associated ritual and ceremony. In order to ensure a constant supply of food, in the form of natural species generally, the Aborigines rely on the great ceremonial cycles of *djunggawon*, *kunapipi*, ? *ngurlmag*, and the *dua* and *juritja nara* cycles which are usual in this region. These rituals are associated with the principal Ancestral Beings, such as Djanggawul, Wauwalak, Laintjung, Banaitja and Baijini. They are the basis of indigenous religion, which in turn reflects all local belief and action. But they are not concerned merely with the provision of food. Their primary purpose is to ensure the continuation of the human species. The increase of all other animals, birds, fish, vegetable matter, etc., is only an adjunct to the main theme.

Religion has a dominant place in Yirrkalla life and is reflected in all its institutions and conventional forms of behaviour. It concerns itself with the fructification of all living things, and in that category human beings themselves are considered the most important.

The Djanggawul myth, comprising several hundreds of lengthy songs, relates the adventures of two men and two women, who in the Dreaming Period landed at Port Bradshaw,

[1] This paper formed the substance of an address to the Anthropological Society of N.S.W. on July 25th, 1950.

on the north-east Arnhem Land coast. They had journeyed across the sea from an island called Bralku, now known as the *dua* home of the dead, somewhere beyond Groote Eylandt. These Ancestral Beings are known generally as the Djanggawul or Djaŋ'you ; but they also have their own personal names. There are several versions of this myth. At Milingimbi, for instance, the Djanggawul are two sisters, who are themselves Sun Goddesses, while the two Djanggawul men are considered only incidentally. In the Yirrkalla version, the leader was Djanggawul himself ; the two women were his sisters, and their other companion plays only a minor part in this great cycle. In their canoe these Beings brought a large conical *ngainmara* mat, which is now used particularly by the women, and certain sacred *rangga* sticks possessing life-giving qualities. The song cycle features the perpetual pregnancy of the two sisters ; their uteri are likened to the *ngainmara* mats which they brought with them, while the people who are removed from them in childbirth are the *rangga*.

This is the first of the 500 odd songs in the cycle of the Djanggawul. It is a general rendering of a phonetically recorded and interlinearly translated text. I am not attempting to include any words not given in the original ; but a great deal of the real beauty is lost in translation.

We leave Bralku ; I, Djanggawul, am paddling ; paddling along with our flat-ended paddles ;
Coming through the sea with Pildjiwuraroiju—coming from Bralku.
Splashing water as we go, and dipping our paddles in and out of the sea, from side to side :
Paddling with Miralaitj ; undulating our buttocks as we paddle ; carried by the roaring incoming tide.
Paddling a great distance ; paddling fast through the rough sea.
Beside us the foam from our paddles ; big waves following us.
Moving our arms quickly in paddling.
Djanggawul paddling along.
Paddling slowly through the sea, as the Morning Star glistens on the rippling calmness before the dawn,
Its shine lighting up the sea.
I, Djanggawul, look back, and see the rays of light leading back to our island of Bralku.
Shine that falls on the paddle as it's dipped into and drawn from the sea :
Shine that spreads from the Star's rays, from Bralku.
The Morning Star skimming the sea's surface, sent by the dancing Spirits there,
Shine following us from Bralku, like a feathered ball with string attached.
Foam and bubbles rise to the sea's surface : a large wave carries us to its crest.
The roar of the sea, the sound of our paddling, the spray of the waves, its salty smell !
We carry with us the sacred mat within which lie the sacred *rangga* objects.

An important aspect of this myth, second only to the theme of fertility, concerns the institution of sacred ritual. In the beginning, so it relates, the Djanggawul sisters themselves were the sole guardians of the religious objects and associated ceremonies. They were well acquainted with all the sacred ritual and doctrine, because this intimately concerned them. The symbols they used, and their actions in dancing, made reference to pregnancy and birth. Aboriginal men to-day speak definitely on this point : " Then we had nothing : no sacred

objects, no sacred ceremonies, the women had everything." Eventually, however, the men stole what belonged to the women and the women agreed that it would save them a lot of trouble. Now the men could carry out most of the ritual for them, while they busied themselves chiefly with raising families and collecting food. In this way, their true function as Fertility Mothers became established. Such an attitude is not confined to north-eastern Arnhem Land, but appears in the mythology of other Australian Aboriginal groups; and the important part played by women in sacred ritual is seen, for instance, in the Kunapipi.

This then is a very brief version of the complete Djanggawul cycle, without presenting any details. To both *dua* and *jiritja* moiety men and women it is of major importance, for men of both moieties take part in the *dua nara* ceremonies, although *dua* men alone are the leaders, singers and principal dancers. The Djanggawul ritual is concerned with "higher" religious thought, and most of it with sacred dancing on a sacred ground where a *nara* "shade" or hut has been constructed. This hut is really the uterus; it is there that the *rangga* are stored, and from it men emerge, to posture ritually and dance while holding these sacred objects.

If the Djanggawul are important to the *dua*, Laintjung and his son Banaitja are equally so to the *jiritja* group of clans, who hold the *jiritja nara* ceremonies. The Male Ancestral Beings Laintjung and Banaitja, with certain female counterparts, dominate *jiritja* religious ideology; but their mythology is not nearly so vivid as that of Djanggawul, nor are their ceremonies so important. Laintjung came from the sea near Blue Mud Bay, and established his cult. There, and at nearby places, he distributed sacred totemic designs to *jiritja* clans: he had also brought with him sacred *rangga*, the *jiritja* "high" totems, which he gave into the custody of the clans. Although much of the Laintjung ritual also relates to the increase of the natural species, most is only indirectly related to fertility.

When his father died, Banaitja desired to broaden and put into practice some of Laintjung's religious concepts but his efforts aroused general antagonism, and at last he was put to death. Later, however, the people to whom Laintjung had given his sacred designs and *rangga* were sorry for what they had done, and make the "likeness" of Banaitja in paperbark bound on a framework of cane. The influence of Laintjung and Banaitja, in spite of their importance, did not cover such a wide area as that of some other Ancestral Beings; and the aborigines account for this by explaining that Banaitja was killed at an early age, before he had the opportunity of travelling widely throughout this region.

It does seem that most of the great religious myths of this region are associated with the *dua* moiety, the more conservative section; it is the *jiritja* which embraces new and "alien" ideas and activities. From time to time, fully-initiated *dua* and *jiritja* men are shown the "high" *rangga*, and through the years they become increasingly familiar with the complex ritual. But the way in which they are accepted into this aspect of sacred life is not thought comparable to an initiation or age-grading ceremony. It is more in the nature of a revelation, a becoming acquainted with the inner substance of religious thought and expression. It is the *dua* Wauwalak myth that is of general importance, and is associated with the three "age-grading" ceremonies of this north-eastern region. There is also much sacred ritual not concerned with age-grading.

The two Wauwalak sisters are associated with the general concept of fertility, owing mainly to their connection with birth, afterbirth blood, and menstruation. The latter

receives a great deal of attention in Yirrkalla thought. Aboriginal women are all potential Wauwalaks ; and a great deal of their behaviour, particularly at puberty, and when menstruation ceases at pregnancy, is said to be based on that of the Two Sisters. The Wauwalak myth is most important to these north-eastern Arnhem Landers, and they make frequent references to it. It has, as I have mentioned, far more general application than have the Djanggawul and Laintjung cycles ; and the three separate ceremonies which concern it at Yirrkalla are each of a different nature. The commonest is the *djunggawon*, used primarily for initiation ; ideally, it extends over a couple of months, and includes, in addition to circumcision and camp dancing, a certain amount of revelatory ritual, as in the case of the Djanggawul. The second of these three ceremonies is the *kunapipi*, which I shall mention again later. The third is the *ngurlkam* ceremony, performed to-day only at rare intervals. It is considered to be far more important than either the *djunggawon* or the *kunapipi*, but less so than the Djanggawul and Laintjung *dua* and *jiritja nara* rituals. There are also a number of subsidiary ceremonies, related in some degree to these two main cycles, but not by any means as outstanding.

This north-eastern culture, far more than those to the south and south-west, pays great attention to the outward expression of religious and esoteric ideology, both as a guide to ritual behaviour, and as a means of impressing certain concepts on the minds of neophytes. In addition to copies of the *rangga* introduced by Djanggawul, Laintjung and others, there are many beautifully made *rangga* relating to various totemic objects and natural species, as well as to human organs and ancestral people, used constantly as " high " *rangga* in the *nara* rituals. They are often stylized, made from various hard woods, cane or paperbark, bound with jungle-fibre twine, painted with clan totemic designs, and ornamented with colourful feathered strings. There are also human figures, carved from blocks of wood, and decorated in the same way. In the Wauwalak ceremonies many other sacred objects are used : the *uwar* drum of the *ngurlmak*, the *jelmalandji* " posts " and forked stick *djepalmandji* of the *kunapipi*, the *julunggul* trumpets and dancing posts of the *djunggawon*. There are also bark paintings, with sacred totemic clan designs, used on the ceremonial ground, or with copies of chest drawings.

All these, for the aborigine, are concrete expressions of his religious concepts, and they prepare his mind to accept the essence of sacred dogma. As symbols, they keep alive for him the reality of traditional belief. Faith is essential for social cohesion, giving meaning and significance to behaviour patterns and institutions. Its presence has been far more apparent in Aboriginal societies throughout Australia than in contemporary European groups. The majority of these aborigines, before contact, believed implicitly in the essential goodness of their own way of life. All was explained, each member of the community had a definite place in the scheme of things, and the future was well determined. To-day, however, the native on the fringe of European culture finds that social conditions are changing, his accepted beliefs have been sharply questioned, and an alien ideology is being more intensively enforced. His ceremonies are performed less frequently, his great song cycles sung less fervently, and his sacred objects and paraphernalia are gradually losing their meaning and intent. The cohesive and integrating qualities of his religion and mythology are weakened, and finally destroyed. The balance of his own cultural structure, with all its apparent weaknesses and inconsistencies, is upset by intensive external pressure and " civilizing "

influences. No longer is the pattern of his life determined by a traditional code. Instead, he discovers himself to be relying more and more constantly on alien beliefs and ideas ; but owing to the suddenness of the change and his inability to adjust himself immediately to the new ways and actions, these fail to satisfy his needs, and so he becomes frustrated and unhappy.

Let us now turn to the Kunapipi cult, having seen something of its place in the general religious scheme of Yirrkalla life.

Tidal water flowing, white foam on the waves.
Fresh water from the rains flows into the river.
There are the paperbark trees : their soft bark falls into the water . . .
Rain falls from the clouds . . .
Waters of the river are swirling . . .
She, Kunapipi, emerges, and walks on dry land.

Here we are told in six small songs of the Kadjari-Kunapipi cycle of the Alawa, of the first arrival of the Mother Kunapipi at the Roper River.

Throughout Arnhem Land, then, and the Northern Territory, through the tribal territories of groups with differing cultures and language, the sacred name of Kunapipi is known.

The Kunapipi cult is diffused over an immense area, and is known sometimes by alternate names but though its rituals and ceremonies may differ in some minor points and its doctrine may vary, its intent remains fundamentally the same and its background is similar throughout all these areas. In north-eastern Arnhem Land, the name Kunapipi expresses a dual concept. On the one hand, it refers to a Fertility Mother or Mothers, and on the other to the great Rainbow Snake. This is the symbolism of the natural instruments of fecundity. In other areas, such as the Daly River, or central-western Northern Territory, the term Kunapipi (although still known) changes to Kalwadi, or to Kadjari, translated into English as " Old Woman," or described as " Mother belonging to you and me." In the north-western and central-western regions of the Northern Territory, more stress is placed on the concept of a Fertility Mother, and less on the Rainbow Snake.

Throughout these areas, a basic feature of Aboriginal religion is the belief in an Original Mother (or Mothers), herself a Creative Being and the essence of fertility and abundance. In western Arnhem Land the Mother is the inspiration and sponsor of the *ubar* (equivalent to the north-eastern Arnhem Land *uwar* of the *ngurlmak* ritual) and *maraiin* cults. On Bathurst and Melville Islands, the Earth Mothers are said to have brought into being the human and natural species and to have introduced their system of social organization. The now virtually extinct Larakia shared this same cult ; and so did the Daly River people, who built circular stone structures to symbolize the uteri of their Mothers. The cult of Kalwadi is still strong in the north-western half of the Territory. As the Kadjari, it spreads down to the central-west, where it is met by another Kadjari cult from the Tanami-Granites desert, and the Billaluna region in Western Australia.

This Mother is always present behind the ritual, the dancing and the singing. She is a symbol of the productive qualities of the earth, the eternal replenisher of human, animal and natural resources ; it was from her uterus that human and totemic beings came forth. She has no totem herself, nor is she a totemic concept ; she does not herself perform totemic

ritual, although her neophytes do. In these areas, she is the background of all totemic ceremony, an " eternal " explanation and symbol of the Aboriginal way of life, with its continual expectation of re-birth. In her sacred mythology she may be alone, or may appear as Two Sisters ; or, in some areas, the Two Sisters may be described as her daughters. For example, from the Roper River westwards, through the Victoria River district into Western Australia, her daughters are the exotic and beautiful Mungamunga, representing an ideal of young aboriginal womanhood. The Mother herself, Kunapipi, Kalwadi or Kadjari, is represented in certain parts of the mythology as an eternally pregnant woman, who in the Dream-Time let out from her uterus human beings, the progenitors of the present natives. She was responsible too for sending out spirits of the natural species from season to season, to ensure their continual increase. In this she did not act entirely alone, but in association with a Rainbow Snake, which completed the dual concept.

In drawings from Birrundudu and from Yirrkalla, artists depict human beings as totemites, flowing from the uterus of the Mother into the " ring place " (or ceremonial ground) for the performance of sacred rites. The ring place is itself the uterus. To-day, in the really important sacred ceremonies, a special ring place is used for the performance of these rituals. As the neophytes leave the camp for the sacred ground, they themselves are said to become increasingly sacred, and to enter the Mother. When the ritual is completed the Mother " lets them out." They emerge from the ring place, and pass once more into ordinary life.

All Kunapipi ritual, irrespective of region, has thus a common theme. We find in it the return to the Mother, and the eventual emergence, when the postulants come out from their sacred ritual refreshed, and as " new " men, that is, it is like a re-birth. This symbolic enactment of birth brings with it a renewal of ideals, energy and faith. Fertility and the supplying of food, sexual pleasure and satisfaction, solidarity within the group, and an undividing faith in the cult as a divine truth—all these elements are present. Food and sex, fundamental in human life, and consequently in religion, owe their continuance, it is said, to the Eternal Mother. It is not surprising that these people, living in such close proximity to nature, with few artificial distractions, should emphasize the theme of female fertility, and upon it build a religion.

It was not until perhaps fifteen years ago that the cult gradually spread northwards from Rose River to Yirrkalla, or from the Roper River district to the back of Milingimbi. And although these people did perform the Kunapipi at relevant seasons, this did not take the place of indigenous religious belief and practice. The great ceremonies of the *dua* and *jirjtia* moiety *nara* were still the most important ; and the *djunggawon* and *ngurlmak* rituals associated with the two Wauwalak sisters and the Rock Pythons, retained their importance in the minds of the north-eastern and central people.

The introduced Kunapipi cult brought with it all its attendant ritual and ceremonial activity, but its original mythology became merged with that of the Wauwalak. It was, in consequence, more readily accepted by the local people : for the Wauwalak myth-cycle embraces much of the indigenous religion. Thus, instead of becoming just another introduced ceremony, the Kunapipi became a cult associated with a series of cults, having roots in indigenous mythology. The Wauwalak mythology had a great deal in common with that of the southern Kunapipi. Both possessed the same concept of fertility. The Wauwalak

sisters became indirectly the dual Mothers, continually replenishing the earth. Even the Rainbow Snake was present in the form of the Rock Pythons, who finally swallowed the Sisters. Fundamentally, too, the arrangement of the sacred dancing ground, and much of the incidental ceremony are similar to those of the *djunggawon* and *ngurlmak* rituals.

A number of ceremonies throughout the northern half of the Territory are associated with Fertility Mothers and Rainbow Snakes ; and it is possible that the majority of these cults are linked with one another, even if their outward expressions are dissimilar. But the Kunapipi cult consists of certain distinctive elements, that are found throughout the areas I have mentioned. For example, the Kunapipi held at Yirrkalla is essentially similar to that held at Birrundudu, and there is no mistaking its principal rituals. There is the spasmodic use of bullroarers ; the sacred ground itself is the uterus of the Mother ; a sacred well is dug on the dancing ground ; a crescent-shaped trench is made later ; *jelmalandji* posts are erected, immense structures symbolizing the Pythons ; there is the exchange of wives and gifts, with ceremonial intercourse ; and the forked posts called *djepalmandji* are used towards the termination of the rituals. These are features of all Kunapipi, Kalwadi and Kadjari ceremonies.

The myth that substantiates Kunapipi ritual in this area is thus concerned with the two Wauwalak sisters ; and this same myth, as I have said, serves to explain two other indigenous rituals, the age-grading *djunggawon* and the *ngurlmak*. Each of these three ceremonies, the *djunggawon*, *kunapipi* and *ngurlmak*, emphasizes a certain aspect of this myth, so that some particular feature becomes accentuated. But at the same time, to understand thoroughly the Kunapipi ritual and symbolism, it is necessary to be acquainted with the complete Wauwalak myth and again, to understand fully the importance of this concept of fertility, it is necessary to realize the place of the Djanggawul Brother and Sisters in Yirrkalla sacred life, for they were responsible in the first place for the birth of the Wauwalak. The power of fructification, however, has been transmitted to the Two Sisters.

As I have mentioned, women have a far more important part to play in sacred ritual than has been previously suspected. Women to-day are acquainted with the background of sacred ceremony and the underlying doctrines. Merely because they do not join in certain of the most sacred mysteries, women do not feel " left out " of things, or pushed aside into what has been termed by some writers a profane existence, with attendant feelings of inferiority. On the contrary, they realize that they have a supplementary function in maintaining camp dancing, and answering the men's ritualistic calls from the sacred ground ; it is necessary, for instance, that they prepare food for the men at such times, and observe certain tabus. The men, so women say, are performing these ceremonies not only for themselves, but for all the people in general and this is simply a normal extension of the sexual division of labour and activity.

It is obviously not possible to present the essence of the Wauwalak mythology in any detail. The story of the Wauwalak is rarely told in prose by a story-teller. Usually it is transmitted from one group of men to another, through the generations, by ritual actions, accompanied by explanations, on the ceremonial ground. Moreover, the whole myth is related in the sacred " inside " Wauwalak cycle of some hundreds of songs, in two main series : the " inside " Bush cycle, and the " inside " seaside cycle, each describing in detail the adventures of the Sisters. There are also the " outside " Bush and seaside cycles, sung

in the main camp to the dancing of women. Each one of these songs is representative of the very best in native poetry, and it is unfortunate that I am unable to read you some.

Summarizing very briefly indeed, the Wauwalak myth tells of two sisters, one having just given birth to a child and one who has almost reached puberty. After many adventures they reach a sacred waterhole in which, unknown to them, lives Julunggul, the Rock Python. He smells the afterbirth blood and finally swallows them and the child. Later he speaks to other rock pythons in various other territories. The core of the myth rests on various activities the Sisters go through to stop the Snake from swallowing them. Through dancing at this time, the younger Wauwalak causes her menstrual flow to begin. This leads to her and her sister being swallowed. Later they are vomited from the Snake's belly, and become alive again spiritually. A great deal of the associated ritual, as expressed in the Kunapipi, is a re-enactment of the experiences of the Two Sisters.

The myth itself is not an idle chronicle of events that occurred in the past, and are to-day without real and vivid meaning. The Wauwalak, although they lived in the *wongar* Dreaming Period, when Ancestral Beings walked the earth creating and naming various physiographical features and natural phenomena, are believed to be just as much alive spiritually to-day as ever they were. With the Julunggul python, they possess qualities and power without which, it is said, man cannot exist. He is in need of divine intervention, that will ensure his material and spiritual continuation. This power that releases the forces which are beyond man's control, but essential to his well-being, is possessed by the great Ancestral Beings who are spiritually eternal.

The crux of the matter is, how may this " power " be released ? To know the sacred mythology and its intent is not sufficient ; religion, to these aborigines, is not just " blind " reliance on the Ancestral Beings, an inertia based on the hope that " something is bound to turn up " eventually if they wait long enough. They must do their part in bringing about the action of the Ancestral Beings ; and their way of assuming responsibility is through the carrying out of ritual and ceremony. This outward expression of their religious feeling is consolidated in ritual re-enactment of the relevant myth, thus releasing the " power " (or *dal*) inherent in the Ancestral Beings. This *dal*, no longer latent in the myth itself, then finds full expression, and fertility is assured.

Briefly, then, the myth is thought to express the intentions of the Ancestral Beings, who possess the power to carry them out ; and this power is released (or brought to bear) by sacred ritual, as an enactment of the myth. It arranges the seasons, maintains an adequate supply of food, and ensures constant human procreation and continuance of the group as a whole.

Kunapipi ritual may be divided into the following parts :

(*a*) It is held in the dry season, when food is plentiful ; for during this ceremony people are reaping the benefits of performances held in the previous year, and at the same time they are preparing for the coming wet season and the subsequent growth of food. Messengers are sent out, and chosen novices are taken away from their home camp. The Kunapipi leader makes a ceremonial ground, as well as a bullroarer ; the latter is painted and anointed with blood and swung to the accompaniment of singing.

(*b*) Some time afterwards, the first Kunapipi ceremony takes place in the main camp ; men sing " outside " Wauwalak and Kunapipi songs, while the women dance. At this time

the bullroarer is swung out at the sacred ground. This is the cry of Julunggul the python ; in answer the Kunapipi leader calls, followed by the cries of all the women. The women cry out like the Wauwalak before they were swallowed.

(*c*) Almost immediately after this, the young boys are taken out to the sacred ground, and as far as the women in the main camp are *officially* concerned, are " swallowed by the Snake." Later that night, the women and mothers of the boys are told, " All the young boys have gone, Julunggul has swallowed them up." And the women wail, singing the clan songs of the novices, as if they were dead.

(*d*) On the sacred ground a sequence of totemic dancing takes place " teaching " the young boys. In the main camp, the women dance in the same way as did the Wauwalak, when they tried to stop the progress of the Snake before their swallowing. The totemic animals, birds and vegetables that are sung and danced are those which were seen by the Wauwalak, or collected by them for food.

(*e*) Later the men leave the sacred ground and dance with lighted paperbark torches towards the main camp. On their way they meet the women, crouched under the conically shaped *ngainmara* mats. The men file around the mat-covered women, the leader beating his sticks and singing. The women have brought presents of food, which are handed over. The dancing men symbolize Julunggul surrounding the Wauwalak ; but in this case, the women are not swallowed, because none are menstruating or have afterbirth blood.

(*f*) Visitors from surrounding territories reach the Kunapipi camp about this time. Some of the above rituals are repeated : more presents are exchanged.

(*g*) On the sacred ground a large hole is dug ; this is the *nanggaru*, representing Julunggul's waterhole. Two other holes are dug, and in each hole squats a man ; one, covered with paperbark, represents the female child of the elder sister, while another actor squats outside the hole as the " mother." In the second hole is the " younger sister," who is menstruating. The " child " in the hole cries, and the " mother " moves around it ; then both the " sisters " leave their positions and dance like the Wauwalak. A number of totemic dancers enter the *nangguru*, for in the Wauwalak mythology the animals, etc., caught by the Sisters and roasted left the fire, became alive, and jumped into the sacred waterhole.

(*h*) Later, a large crescent-shaped trench is dug, the *kanala*. This is an extremely important symbol in the Kunapipi ; it may signify any of the following : the track mark of the Julunggul ; the mark left by Julunggul's fall, after swallowing the Wauwalak ; the crescent-shaped position in which the Wauwalak rested in their hut before the Snake swallowed them ; the clitoris of the Wauwalak ; and its real " inside " meaning, the uterus of the Wauwalak (as a substitute for the Kunapipi Mother or of the Djanggawul Fertility Mothers).

(*i*) *Jelmalandji* emblems are made. Two are made, one larger than the other. Although one represents the Julunggul itself, the other is said to be the " cabbage " palm which was standing near the sacred well. It is also said to be the spirit of Julunggul.

The novices are placed in the *kanala* and covered with bark. A series of totemic dances are performed, each actor coming towards the *kanala*. The *jelmalandji* are erected at the side of the *kanala* ; the bark is thrown off the boys, and they are told to look upwards at the *jelmalandji* Julunggul.

(*j*) This is followed by the *djamala*, or ritual fire-throwing ceremony. Fire brands are thrown across the sacred ground, over the *kanala* in which the boys sit, and they symbolize the lightning sent by Julunggul.

(*k*) The *jelmalandji* are then pushed over so that they hit a pole and tumble to the ground. That is, the Julunggul are falling over after swallowing the Wauwalak.

The boys are removed from the *kanala*, while the *jelmalandji* are put in their place. Fire sticks are thrown into the *kanala* to burn the grass and paperbark surrounding the central poles of the emblems. Men open their arm veins, and sprinkle blood on to one another and into the trench ; this is the blood of the Wauwalak, and blood itself symbolizes life. The *kanala* hole is then gradually covered in by dancing feet.

(*l*) Later, this is followed by women's dancing on the sacred ground, and ceremonial intercourse.

(*m*) The final ceremony is associated with the *djepalmandji*. This is erected at the boundary between the ceremonial ground and the main camp. Two forked sticks are placed upright in the ground, and a thick connecting ridge pole is placed between them, resting on the forks. This pole is hung with branches, so that the space between it and the ground is thickly covered.

Two men climb on to the forked posts ; young novices are then placed under the bushes of the *djepalmandji*, so that they are completely covered and hidden from outside view. The two men who sit in the forks, are really the babies of the Wauwalak (although only one child is mentioned in the Yirrkalla Wauwalak myth). They sit in the fork, which symbolizes the uterus of the Wauwalak, and they cry ritually in the same way that a child cries when issuing at birth from its mother's womb. This is one of the most important points in this terminating series of rituals ; for here, symbolically expressed, is the enactment of childbirth, a crystallization of Kunapipi intent. Under the cover of branches and bush, below the *djepalmandji*, are the young novices who have passed through all the main Kunapipi ceremonies ; they lie passive in the uterus (or uteri) of the Wauwalak. Soon they will be coming out, and will be spiritually re-born, just as the Wauwalak child was born.

This is accompanied by much ritual and dancing, and finally the young novices emerge. The women see them coming out of the bushes, emerging from the uterus, all covered with red-ochre that symbolizes the blood of the Wauwalak. In conclusion, the *djepalmandji* are knocked down, and the young boys are taken to the men's camp. This is followed by a ceremonial entry into the main camp ; the young boys are re-painted and decorated with headbands, and there is a general purification ceremony and final camp singing.

Ritual is an expression of the sacred mythology and releases the " power " vested in the Divine Ancestral Beings for the ultimate welfare of the tribal group. This is primarily a materialistic aim, for its specific intent is the production of necessities for the physical continuation and survival of the people ; the bringing into force of an elaborate mechanism that expresses man's innate selfishness and egocentricity. But as an adjunct to this thesis, Yirrkalla religion has an underlying non-materialistic thread that is an expression of spiritual growth. Based as it is on an unquestioning faith in the religious doctrine, a belief in the omnipotence and immutability of the " eternal " representatives, a religious philosophy has been developed among the mature " thinkers " of this group. This finds its outlet in the mental exercise of meditation, interpretation, and explanation, but is nevertheless restricted by the deep faith that is a living part of all its manifestations. Within the limitation of defined premises, a certain degree of flexibility is apparent ; philosophic concepts have not remained static, nor ideology stagnant. Throughout the centuries of religious development,

alien ideas have been considered and discussed, even when they were unorthodox, and apparently opposed to indigenous theology. They have been accepted or discarded; but all have, in this way, served to illuminate and extend the basic principles that explain to the aborigines man's place in his environment, and his inter-relationship with the Divine Beings who are possessed of the power of animation and are the seat of knowledge.

Let me mention again the outstanding role undertaken by women throughout the performance of the Kunapipi ceremonies. At no time do they feel themselves forcibly secluded from purely male activity, while at intervals they take an active part. They know that the rituals are principally concerned with peculiarly feminine functions, and that men are carrying out the more strenuous features of ceremonial life. The question of whether women are profane, as opposed to the aura of sacredness pervading a male participant at such a ceremony, does not enter into Yirrkalla thinking. Even when ritually tabu because of afterbirth or menstruation blood, a woman is within the concept of sacredness, for her blood and her other activities themselves are sacred. They are focal points in the religious doctrine.

In the Kunapipi, moreover, the women enter the sacred ground of the men. This is a feature that rarely occurs in the ceremonies associated with other cults. Upon entering the ground, the women themselves become more definitely sacred. They re-enact something of what they themselves originally possessed in the mythological period, and what was stolen by the men. They use the sacred symbol of the Julunggul python, and the tree that was split by his lightning, and through their actions they represent the origin of the men's sacred bullroarer which no woman is supposed to see. They dance the ritual of the great Python, " and the men hang their heads in fear."

I have indicated something of the religious background of Yirrkalla life and something too of the fundamental doctrine of the Kunapipi cult, based as it is on the essential human and animal drives of food and sex, and including such important aspects as the maintenance of food supplies, and procreation, necessary for the continuation of both human and natural species. In this respect the Kunapipi religious cult is not unlike many others that express the hopes and desires of simple and sophisticated peoples alike. And even when its principal intent is materialistic, it does not exclude spiritual conceptions; in fact, these latter are of major importance.

Here, then, in Aboriginal Australia, among contemporary aborigines, exists this vivid and vital cult, expressing their own religious view of life. It is correlated with the traditional background and social institutions of these people and intimately concerns their spiritual and psychic personality structure. Moreover, it is well adapted to their particular environment, since the great Spirit Beings themselves are associated with the country the aborigines know and love; and each man, woman and child has a part in this religious concept, for he (or she) is akin to the Mother. That is to say, the religion of these people has grown out of their particular material and spiritual requirements, in such a way that it is a very real and important aspect of each person's life. There is no sharp demarcation between secular and sacred life, because the one is so closely interwoven with the other. This religious concept, too, is not confined to men; it is equally important and significant to women. Each sex has its own particular sphere of activity and interest.

The religion of an indigenous native group, which has had little or no alien contact, is a living faith, something quite inseparable from the pattern of everyday life and thought.

With the introduction of alien ideas, through intensive European contact, this fundamental faith is shattered to a greater or lesser degree, according to the intensity and type of that contact. In most parts of Arnhem Land where Missions have been established, there is the impact of Christian teaching, of ideals which are not intimately concerned with the life of the native people, which often contrast sharply with indigenous traditional themes, and which belong, themselves, to a strange and different cultural background. It is not to be wondered at, then, that the repercussions of this impact are frequently severe.

Christianity, with its attendant ritual and belief, is apparently inseparable, in this context, from Western European culture, and for that reason it assumes a dominant and militant aspect. The indigenous culture on the other hand, lacking the other's wide range of material objects and technology, and the subtleties of fanatic evangelization, seems as a rule powerless to resist.

The balanced life and economy of the aborigines has been drastically upset, with resulting disorganization. The Kunapipi too has suffered, and is rarely seen in its entirety to-day, although its basic rituals and concepts have as yet remained relatively unaltered. Its adherents have, however, been driven to secrecy ; and its ceremonies are for the most part carried out in the bush, away from Mission stations and settlements.

We might well ask, what is the future of a cult like the Kunapipi. Can it continue to exist in its present form, in a situation of culture contact ? Example has shown that under abnormal conditions, when the inroads of an alien culture have attacked the social structure of the indigenous society, its survival odds are relatively low. Collapse of Aboriginal community life brings disillusionment, loss of faith in accepted doctrines, and consequent maladjustment. That is to say, as contact becomes more intensive, a cult of the Kunapipi variety will become correspondingly corrupted, and its principal intent will be overshadowed by the distortion of certain aspects which will inevitably serve to destroy it completely.

On the other hand, a cult of this type, which so adequately fulfils an aborigine's religious requirements within his own cultural environment, is so much a part of his material and psychological make-up, and expresses the basic urges and necessities of his life, should surely find some place in his changing society, among widening interests. And this should ideally be the case if the aboriginal is to retain something of his individuality, and not become merely a stereotyped imitation of the European. But this ideal form of adaptation is not to be found in North Australia to-day, and there are no indications that it will be so in the future. The indigenous religious faiths, although in some areas they still retain their full significance, are in others gradually changing, and their hold on the people's life is weakening ; and in some regions they are merely a shadow of their former selves, distorted to meet the selfish aims of a few maladjusted and frustrated tribal remnants.

Still, however, in outlying camps where aboriginal life proceeds comparatively undisturbed (and there are few such areas to-day) the twirling bullroarer is heard, and the answering call of the women ; there is rhythmic singing, and the stamping of dancing feet on the sacred ground echoes through the quietness of the bush. People have come together to renew their faith, to refresh themselves spiritually, and to ensure that the continuity of the seasons is maintained, as well as the continuance of the life they know and appreciate. The pervading influence of the Great Mother is, to them, a reality.

RONALD M. BERNDT.

Australia: Social Anthropology. **Harney**

Australian Aboriginal Cooking Methods. *By W. E. Harney.*

" Just like the food my mother cooked for us." This remark was made, partly in joke and partly in earnest, by an Aborigine who had been a long time with the whites, while he was eating a concoction of cycad nuts, a food that smells to high heaven but is much appreciated by the Aborigines. It gives a jolt to the stock joke about the Aborigine killing his game, tossing it on to the glowing embers of the fire, eating it partially cooked or warmed, and then casting the scraps behind him to the waiting woman, who in her turn munches her share and hurls the bones to the pack of curs waiting patiently behind.

The Aborigines' meat was often underdone. Hunger or perhaps experience was the reason, for they were no fools and might have learnt how to get the most benefit from their foods. To them vitamins were a matter of " instinct," and lack of them in a given food drove them elsewhere to procure the needed diet. Natives at one place will often remark that they *must* go to another place to eat possum or some other food, and the way they emphasize the *must* suggests that they are performing a duty or that an inherited or deeply-rooted drive compels them to move at that time of the year.

In the past, the Aborigines moved from place to place gathering food, each type of food requiring a different method of preparation. Sea-foods are often washed in cold water before eating. Pods and certain yams are soaked in water. Honey must be eaten with a special grass. One type of animal is cooked in a different manner to another. Indigestible substances are prepared by moistening them on the grinding stones with water squirted from the mouth, and other foods are only eaten after they have been pounded between large " digester stones." Some foods are eaten raw, whilst others are well cooked.

Those people who have eaten native food cooked native fashion can attest to its staying qualities. It may look, to our eyes, rather crude, but to the Aborigines " everything edible is food." It is, however, according to its staying quality that a substance is judged. From this comes the division of foods into " Light and Heavy." Pale watery yams, honey, berries and oysters are light foods, while red beef, eggs, fish, game, heavy yams, prepared lily and seed-pods are amongst the heavy foods. This grouping has not been made on the say-so of some expert on cooking, but from the satisfaction derived from the substances. Thus, an Aborigine who was eating " sugar-bag "—wild honey—remarked that it was good food but made one " fullup, all the same wind." By this he meant that one could be filled, yet never satisfied, and would soon be hungry again.

Heavy flesh foods include dugong, turtle, kangaroo and wallaby, emu, bandicoot, opossum, monitor lizard, wild fowl such as turkey, goose and duck, and the ever sought after flying-fox. Only a few are mentioned, but each one requires a different method of preparation, that is, a style which suits the taste, or has been developed by them from experience.

Kangaroo and Dugong.

A hole like a shallow dish is scooped out of the earth, and in this a fire is made, the hole and fire varying with the size of the food to be cooked. Stones or pieces of ant-bed are placed on the fire and allowed to get red hot as the fire burns down. A layer of hot stones or ant-bed is left on the bottom of the oven. Over these stones a layer of green and wet leaves is laid.

River gum leaves, the " demallang " of the Wadaman Aborigines, is often used as a substitute for salt, but in other tribes near the salt-water, honeysuckle or some other favourite seasoning bush is used.

Whilst these are steaming, a layer of meat, which has been cut with the skin on, is laid on the stones with the skin underneath, then more hot stones and leaves are put on top of this, the process being continued till the whole of the beef is neatly packed in the oven. The hot stones of the oven are handled with pieces of paperbark or queer bat-shaped paddles used as a pair of tongs. Sheets of paperbark or grass are placed over the top to cover all the beef and over these a thick layer of earth is placed, care being taken that no earth gets in and no steam escapes from the cooking beef.

The quantity of meat cooked determines the time of cooking. Large quantities, up to five hundred pounds weight, can remain all day in the oven, while small lots of a few pounds are cooked in an hour.

Turtles.

The big sea-going turtle and not the small fresh-water variety, is cooked by first making a large fire, and throwing the complete creature on it to burn it well, and, according to the natives, to " drive back the juices into the flesh." After this first burning, the turtle is taken off and cut open along the neck. The eggs, if any, are carefully taken out and laid aside, with the liver and other solid pieces of flesh. The intestines are the tit-bits for the cooks.

After cleaning, the hot stones of the ground oven are dropped into the neck aperture, the entrance being blocked up with grass, and the whole turtle is placed in the ground oven, back downwards, and covered with stones and coals.

The long gut and gullet of the turtle are now cleaned by being turned inside out, and into them are put any eggs that were found in the turtle, and the ends are tied up. These egg sausages are cooked under hot sand or ashes, and when cooked into a hard boiled mass can be carried for many days.

After the turtle has been cooking a while, the time depending on the patience of the hungry hunters and their wives and children, the hot embers are scraped away and as soon as it is cool, the breast plate is removed and the fore and leg quarters cut out. The carapace, or shell, which forms the back of the turtle now becomes a dish, and is full of a rich soup formed by the cooking beef. This can be ladled out and eaten from plates, but the natives, always communal, get around the shell as it rests in the fairly cool oven and drink up the juices with their mouths ; a real beach obligato, with accompaniment of crying children, yelping dogs and bobbing heads keeping time to the music.

Bandicoot, Opossum, Flying Fox, etc.

These are rarely cooked in ground ovens, but are just placed on an open fire with coals packed over them. The opossum is always gutted, but the flying-fox never. Burnt opossums have a rare flavour with a touch of eucalyptus, but none of the flying-fox is wasted. Every bit is eaten except the gall and the bladder, and Aborigines have told me that after a prolonged feast of many weeks on these " dainties " their urine turns greenish in colour.

Game.

Bustard or plain turkey is hunted by the natives by lighting fires in the grass. By keeping close to these bush fires they knock over the birds with throwing sticks as they run through the smoke after grasshoppers. These birds are always fat in the winter months, especially if they live in country where the " gum " grows on the " pear trees " that line the rivers and creek flats in parts of the Northern Territory. After plucking the birds, they are gutted by opening them along the backbone. A small oven is made, the stones being heated as in the larger oven. These hot stones are now wrapped in wet " lemon-grass " and placed inside each bird with the leaves of a special bush laid on top as an outside flavour. The lot is covered carefully with bark and earth, and after an hour's cooking the result is equal to any oven dish. At times a layer of yams is placed around the birds and the lot cooked in its own steam.

Ducks and geese are often cooked in this manner, but in many instances these are split open along the back, flattened out and cooked by placing them upon the coals of the fire.

Reptiles.

These are all cooked in the coals of the fire. They are first heated over the blazing fire to drive in the juices. Monitors and other lizards are gutted through the anus, and by an insertion under the forearm, the gall bag is removed so that it will not burst and taint the meat. Careful handling of fat monitors is always essential before cooking so that the ball of fat—a special treat—does not burst and be lost in the cooking.

A snake is cleaned in the same manner as a monitor, and is then stretched over a fire by a native on each side. This softens the muscles which, otherwise, would cause it to shrink into weird shapes. After it has stopped twitching, a small incision is made along each side of the snake's backbone for its entire length ; it can now be rolled into a neat coil, which does not twist out of the coals during the cooking. Eggs inside these reptiles are not disturbed in the gutting, and cooked within, come out as a special tit-bit.

Fish, etc.

Fish, sharks, stingrays, oysters, cockles, toredo worms and such sea foods are treated in various ways.

Crabs and fish are cooked on, or in, the coals. Those that live on mud are gutted, whilst those which live on flesh foods are cooked whole. The fresh-water cod is gutted through the mouth, the fat being put into the air sack, tied up, and put back again inside. It is then cooked under the ashes.

The stingray is first cut open to get at the large creamy liver, and, if this is brown looking, the fish is thrown away. If, however, it is as it should be, the liver is placed aside and the flesh cooked over an open fire.

When cooked, the flesh is well shredded and washed in fresh water which becomes milky coloured from the oil in the fish. After two washings the white cotton-like flesh is made into balls, a ball for each person present. The liver is equally divided and, in the raw state, is placed on top of each ball of flesh, handed around and without any further cooking is eaten. Some natives prefer to pass a heated fire-stick over the liver to warm it up, but in the past it was eaten raw.

Small gummy sharks are also cooked by this method. Shellfish are cooked lip down on the coals of the fire, and when cooked are soaked in fresh water before eating. Toredo worms are often treated in the same manner.

Vegetable Foods.

The chief vegetable foods are wild yams, cycad palm-nuts and water-lilies. Two types of yams are gathered, the mild ones which can be dug up, cooked and eaten without any preparation, and the " cheeky ones " which are bitter and poisonous and must be prepared before they can be eaten. Experience alone can tell one from the other. The best rule is to leave them alone and ask the experts' advice and indeed to get them to eat one to back up their assertion.

The good yams are just cooked in the coals and eaten but when these are of a fibrous nature they are pounded by the cooks between " digester stones " as an aid to digestion. Many yams can be eaten raw, but these are considered light foods. " Cheeky " yams are gathered, cooked in earth ovens, and then sliced and soaked in running water to take out any poisonous or bitter matter. Prepared in this way they can be safely eaten.

A good rule when dealing with any unknown native food is to prepare it in this manner. Even putrid meat placed in running water by Aborigines for a few days before cooking becomes quite edible.

Along the coastal belts of the Northern Territory the Cycad nut is the food par excellence. Nearly all ritual grounds are near these patches. A Melville Island man said : " In my country we fight over the *korka* (the Cycad)."

In Melville and Bathurst Islands the cycad, being poisonous, is prepared as the " cheeky " yam, but in all other places it is gathered, taken out of its hard skin, sliced up, then dried in the sun. To slice this food the natives of the Karawa tribe always preferred a knife made from the bladebone of a wallaby. They said it was sharper and cut better than a steel knife. The dehydrated article, once treated, could be carried for barter over long trails. When needed, it was soaked in water for three days. The pulp was then ground on stone mortars and put into a bark dish. It was then rolled in paperbark and cooked under the coals as a bushman cooks his damper. When taken out, it resembles a large damper covered with a paperbark skin. This is peeled off as the diner eats into the food.

Owing to fermentation after cooking, the *munja*—the name of the cooked nut in the Kurawa tribe—becomes very " high," but as with strong cheese, this is regarded as a sign of excellence, a fact to which many bushmen who have lived on it can testify.

In Borroloola, with acute food shortage caused by delay in shipping, the dried cycad nut was always kept by the whites as a standby in times of emergency. As the flour bag became low a little of the soaked nuts was added to the damper or bread, and this went on with the proportion of cycad nut becoming greater as the flour bag became lighter, until finally, both blacks and whites would be trying out new recipes of the *munja* palm.

Another method of preparing this food was to put the nuts into a long trench and cover this with grass and paperbark. It was then left until the Aborigines gathered for a big ritual. I saw this at Manangoora on the Wearyan River.

When all was ready the nuts were uncovered. The " high " smell that swept over brought shouts of praise from the Aborigines with corresponding curses from any whites who happened to be camped on the windward side of the " tasty dish."

Of all plants growing in the Northern Territory, the water-lily is the best food. Covering the lagoons with a mantle of blue and white blooms, it is a larder for the tribesmen, whose country includes such lagoons.

The root tubers found in the mud at the bottom of the plant provides a yellow floury food, which is cooked in the coals of the fire. The stalks, which carry the pods, are very rich, as witness the breasts of mothers expanding after a few days on this diet. At times the stalks are dried in the sun to make them sweeter.

The seed pods are gathered, ground on stones and cooked in the same way as the cycad nuts. Care is always exercised when preparing them, for they are highly indigestible. The natives squirt water from their mouths on to the dry seeds as they grind them into a pasty mass. Even when cooked in a cake-like form it is well chewed by mothers before being given to the children to eat—surely the result of the lessons of experience handed down through the generations!

These are but a few recipes, but enough to show that the Aboriginal people knew a little of the culinary art. But why do they do the things in the way they do? Why do they soak certain grasses in such "light foods" as honey and then suck the grass? Does it give the honey greater qualities by allowing more saliva to be mixed with it?

Why do many tribes eat chalk or give their children ant-bed to chew? At Bathurst and Melville Island the people eat large quantities of it. It is baked in a fire and eaten like any other food.

What first gave them the idea of soaking green tree ants in water to make a sort of lemonade which they use as a cure for headache, or to soak flowers, such as honeysuckle, in water to give them a sweet drink?

All this and much more has been discovered and used by the Aborigines of the Northern Territory. "All things edible are food" is their motto, and the care and preparation of food are as essential to their welfare as are the hunting and gathering of it from the bush around them.

W. E. Harney.

Australia: Archæology. **Balfour**

A Phallic Stone from Central Australia. *By H. R. Balfour, Esq., Vice-President, Anthropological Society of Victoria.*

The phallic stone, which is the subject of this article, came into my possession through Mr. W. H. Gill, who found it at Koparilja, near Hermannsburg, Central Australia, in 1930. I visited the place where it was found in 1937, along with the late Rev. J. R. B. Love and my brother, Dr. J. Balfour.

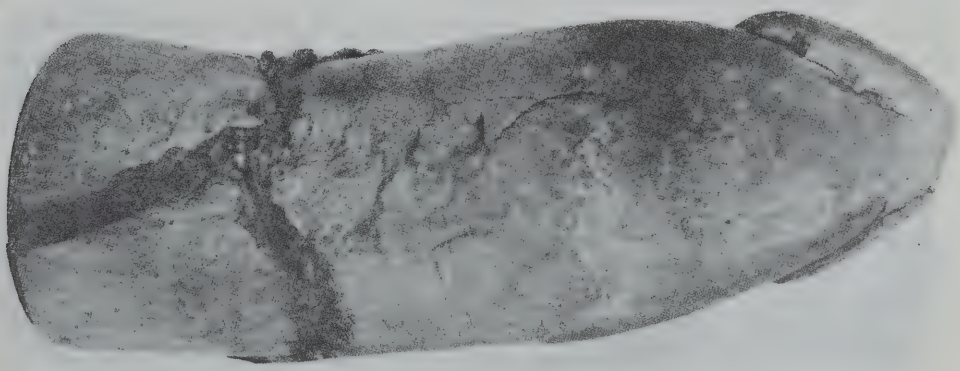
The three of us arrived at Oodnadatta on 23rd May, 1937, and left immediately for Ernabella, on the edge of the Musgrave Ranges. We stayed there for a short time and then proceeded by camel through the Range to Ayer's Rock and Mount Olga and back again to Ernabella. On the 19th July we left for Oodnadatta and arrived back in Melbourne on the 23rd July.

The stone is known to the natives as *Kwatjaparra*, or The Thunderbolt, and the following legend concerning it was told to Mr. H. A. Heinrich of the Hermannsburg Mission Station, Finke River, by Rauarinja, a native of the Arunta tribe, in 1930.

West of Koporilja, there is a big hill whose name is Nkalla-lutna. At Nkalla-lutna, in mythical times, there was a rain-man whose name was Nkanjia. He was an important man, being connected with thunder.

In a cave a little way up the creek from Koporilja there was another rain-man, whose name was Ero'amba, which means Big Cloud.

Right at the spring at Koporilja there was another rain-man whose name was Inamana, which means Big Rain. A little way down from Koporilja, where a little creek comes in from the west, there was another rain-man whose name was Larkaka, which means lightning, i.e. sheet lightning.



Up from Koporilja, at Abbetalbetala, there was another rain-man whose name was Kotulba, which means "Thunderbolt," i.e. the lightning that strikes.

One day the rain-man Nkanjia, who was at Nkalla-lutna, said to the rain-man Ero'amba: "Grow no more You." Thereupon the rain-man Ero'amba grew no bigger and the skies no longer became overcast.

Then the rain-man Nkanjia who was at Nkalla-lutna said to the rain-man Inamana: "You are not to rain all the time." Thereupon the rain-man Inamana ceased to rain all the time.

Then the rain-man Nkanjia who was at Nkalla-lutna spoke thus to the rain-man Larkaka: "You are no longer to make lightning all the time." Thereupon the rain-man Larkaka ceased to make lightning all the time.

Then the rain-man Nkanjia who was at Nkalla-lutna said to the rain-man Kotulba: "You are not to throw thunderbolts." Thereupon the rain-man Kotulba ceased to throw thunderbolts.

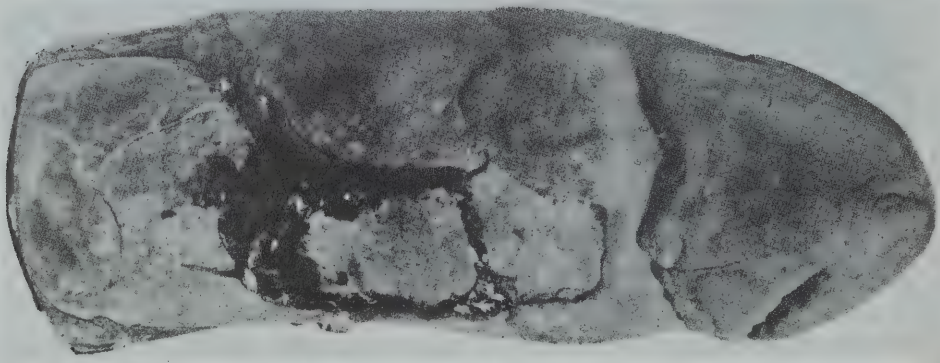
Then the rain-man Nkanjia who was at Nkalla-lutna again spoke: "Behold I am truly the very big rain-man, all the other rain-men obey me."

Speaking like that, Nkanjia, who was at Nkalla-lutna, saw another rain-man coming from the east. This rain-man's name was Imbotna, which means hail. He came from Njambanga. This rain-man Imbotna did not come openly, but sneaked up.

The four rain-men Ero'amba, Inamana, Larkaka and Kotulba, did not see the rain-man Imbotna come up. Imbotna came quite close up to them and undid their hair so that it hung over their shoulders. Then a big rain came. The rain encircled them so that they could not see anything. Thereupon the rain-man Imbotna dragged them, the four rain-men Ero'amba, Inamana, Larkaka and Kotulba, and wanted to take them back to his place at Njambanja. They all walked to Alkrabanta down the creek about eight miles from Koporilja.

When Nkanjia saw that Imbotna was taking the four rain-men with him, he got very angry and talked very loud, i.e. thundered. Thereupon big clouds rose up and covered the whole sky, and then much lightning flashed, and much rain fell, and many thunderbolts struck the ground.

This happened at Alkrabanta.



Imbotna when he heard Nkanjia's loud talk (thunder), proposed at Nkalla-lutna to fight Nkanjia. They fought for a long time.

Imbotna tired first and became a Churinga, a little down from Koporilja.

Nkamjia also grew tired and became a Churinga at Nkalla-lutna, his place.

But Ero'amba went to Latnima (now Glen Helen Station) from Alkrabanta. Thence he went to Imokkana where there were several rain-men. There he grew tired and became a Churinga.

Inamana, from Alkrabanta went to Ntarea, a half mile west of Hermannsburg. From there he proceeded to Njambanga, Imbotna's place.

There he grew tired and became a Churinga.

From Alkrabanta, Larkaka went to his aunt to a place called Tjakala. His aunt was a spinster. When she saw Larkaka approach she danced, shaking her thighs, causing the lips of her vagina to tremble. Lightning came out of her vagina. Larkaka entered her vagina. Thereupon both became Churingas.

Kotulba, from Alkrabanta went back to Albetalbetala, his place. There he stayed.

Whenever Nkanjia spoke, i.e. thundered, his penis became erect. (He was not sub-incised, only circumcised.) When erect, he passed fire instead of urine, often setting trees alight.

He then also caught hold of his long big penis and hit trees, smashing them. One day his penis broke off, was turned into a stone, and became a Churinga. Kotulba himself thereupon proceeded to Njambanga, where he grew tired and became a Churinga.

H. R. Balfour.

Australia: Material Culture. Gill.

Aboriginal Kitchen Middens and Marine Shell Beds. *By Edmund D. Gill, B.A., B.D., Palæontologist, National Museum, Melbourne.*

The literature on Australian aboriginal coastal kitchen middens was recently examined in connection with a research project, and it was noted that there has often been confusion with marine shell beds. Both geologists (e.g. Pritchard, 1919) and ethnologists (e.g. Kenyon, 1927) have commented on this. In Pleistocene and Holocene times there were higher sea-levels which left along our extensive coastline shell beds now standing above high-water mark. From experience with both kinds of deposits, the writer has formulated the following criteria for distinguishing between them.

Distinguishing Marks of Kitchen Middens.

(1) The presence of charcoal, burnt wood, blackened shells and such evidences of fire which are not on the surface (as when caused by bush fires or by campers) but extend through the deposit.

(2) The charcoal and shells often have a rough stratification, but there are none of those fine features of sedimentation such as are commonly found in water-laid deposits.

(3) The presence of aboriginal implements, and/or of numerous unworked flakes of flint. Commonly found also are pebbles of hard rock which could not occur there naturally. These appear to have been used as cooking stones and hammer stones.

(4) The presence of shells, always of extant mollusca, which do or could live on the contiguous coast. For instance, one does not find middens of sand shells such as *Donax* on a long stretch of rocky coast, or middens of rock-shells such as *Turbo*, *Haliotis* and *Patella* in a muddy estuary or on a stretch of sandy beach. Indeed, it has been noted that there is a very close correlation between the shells of the middens and the facies of marine life present on the adjoining coast. The changes in coastal physiography are accompanied by equally great changes in the molluscan fauna and thus also in the shells of the middens. This may be illustrated from western Victoria, where *Donax* middens (i.e. midden assemblages dominated by the genus named) occur behind sandy beaches, *Turbo* middens where there are shore platforms, and *Patella* middens where old lava flows run out into the sea and consist of large boulders, but no shore platform is present. At Picnic Point, Port Phillip, *Mytilus* middens have been recorded (Gill, 1950). Anderson (1890) described *Ostraea* middens in New South Wales, Roth (quoted in Chapman, 1929, p. 107) mentions *Arca* middens on the Gulf of Carpentaria, and Pulleine (1929) provides an account of *Haliotis* middens in Tasmania (p. 310).

DESCRIPTION OF PLATE O.

Upper photograph shows horizontal and vertical sections of a midden made by the sea at Tower Hill beach, north end, next Merri Cutting (former exit of Merri River, see background). Note the blackening by charcoal, aeolian bedding (foreground section), shells, and hammer stones of basalt. The sandy beach rests on tuff and lapilli from the Tower Hill volcano nearby.

Lower photograph is a vertical section of a midden made by the wind at Shelly Beach, near Thunder Point, Warrnambool, Victoria. Note the non-sedimentary type of stratification, the shells of edible types and sizes, and a predominance of *Turbo* which could not occur naturally in this area. The midden rests on a platform cut in Pleistocene aeolianite.

In the few places where there is lack of correlation between the facies of the midden shells and the facies of the present coastline fauna, this has been found to be significant. For example, in one place middens of rock shells were located where there are now sandy beaches, and this was found by geological and historical investigation to be due to big movements of sand resulting from the removal of natural cover from dunes since occupation by white people. The sand has covered the rocky outcrops where the shellfish used to live.

Thus almost without exception there is a definite correlation in facies between the shells of the middens and the extant local marine fauna, whereas with emerged shell beds the facies may be quite different, or more often still, shells from a number of facies have been washed together into the same bed.

(5) Midden shells are of edible species and of edible sizes, but in the emerged shell beds there are numerous shells of species too small for food, and of all stages of growth including sizes too small for food. This criterion is very useful, but it should not be applied in an absolute fashion. A few shells of non-edible kinds and sizes were transported to middens attached to larger shells, and some shells were used for ornaments (Brough Smyth, 1, p. 279 ; 2, p. 251). However, such shells are comparatively scarce in middens, and in no way compare with the proportion found in marine shell beds.

(6) Sometimes aboriginal kitchen middens give evidence of a degree of selection which could not apply to marine shell beds. For example, east of Cape Nelson, western Victoria, two middens were noted about half a chain from one another. At each there was a native fireplace with numerous burnt stones, flint flakes, and shells of edible kinds and sizes, all in good condition, i.e. they were not tossed up by a storm. However, one midden consisted entirely of *Haliotis* and the other consisted entirely of *Mesodesma*. This suggests that either the aborigines exercised a selective taste, or that the meteorological conditions were such that at one time the *Mesodesma* sand shells were available but not the *Haliotis*, which are generally collected from over the edge of a shore platform. As the aborigines were so markedly omnivorous, the second appears to be the better explanation in this case, especially as each *Mesodesma* shellfish provides so little food compared with the fleshy *Haliotis*. However, the point is that the degree of selection found in middens does not occur in marine shell beds. Anderson (1890) noted in New South Wales middens that " there are often local layers which consist almost entirely of specimens of one genus " (p. 55).

(7) As midden shells are collected by hand from where they live, their surfaces are not worn as is the case with most beach shells. This point was also noted by Le Souef (1910, p. 8).

(8) Yet another characteristic of coastal kitchen middens which distinguishes them from marine shell beds is the detail of the fracture of the shells. " It will be noted that all the limpet shells found in the natives' middens have a small portion of their edge broken, which was done when they were obtained " (Le Souef, 1916, p. 7). Chapman (1929) and Voisey (1934) have made similar observations.

(9) Unmistakable are the middens which in addition to the shells have aggregations of the bones of land and sea animals used for food by the aborigines. The best example of this known to the author is a midden (or rather, series of middens) extending for a mile along sand ridges at Tower Hill beach, Armstrong's Bay, western Victoria. Kenyon (1912, p. 104) gave an account of this site as follows : " Whale, seal, and fish bones are numerous . . .

Bone implements occur sparsely except at certain centres. At Armstrong's Bay, and the vicinity, bone implements, of all sizes up to eighteen inches in length, with flat chisel or more or less blunt needle points abound." Mahony (1912) gave an account of the bones found in these middens, and listed the following:

Sarcophilus harrisii Boitard	Tasmanian Devil, now extinct on mainland
Macropus major Shaw	Kangaroo
Vombatus hirsutus (Perry)	Wombat
Dasyurus viverrinus (Shaw)	Native Cat
Trichosurus vulpeculus (Kerr)	Silver-grey Possum
Pseudocheirus laniginosus (Gould)	Ringtail Possum
Parameles sp.	Bandicoot
Rattus norvegicus (Erxleben)	Rat
Vulpes vulpes (Linnæus)	Fox

The nomenclature has been brought into line with that of " The Mammals of Victoria " (Brazenor, 1950). From the author's collection of bones from this site, Mr. Brazenor, who is Mammalogist at the National Museum, has kindly verified doubtful determinations in Mahony's list, and determined the following:

Thylogale billardierii (Desmarest)	Rufous-bellied Wallaby, recently become extinct in Victoria
Potorous tridactylus (Kerr)	Rat-kangaroo
Dasyurus maculatus (Kerr)	Tiger Cat
Isoodon obesulus (Shaw)	Short-nosed Bandicoot
Gypsophoca tasmanica (Scott and Lord)	Fur Seal

Human remains have been found associated with these middens, and a skull from the vicinity has been figured (Keferstein, 1865).

Distinguishing Marks of Emerged Shell Beds

Emerged marine shell beds are often called " raised beaches," but Zeuner (1945, p. 226) has rightly pointed out that this description is inaccurate. The criteria by which to recognize such beds include the following:

(1) They are generally stratified, and show the sedimentary features of water-laid deposits. The shells lie in relation to this stratification, and sometimes there is a marked uniformity of orientation of the shells, e.g. the shells may be mostly with their concave sides upwards, or *vice versa*. Sometimes the lamellibranchs have both valves still together, and the shells may even be in their position of growth (a biocoenose), a condition of course never found in the middens.

(2) Marine shell beds, in contrast with middens, have shells of non-edible as well as edible types, and shells at all stages of growth, not just the edible sizes. The proportion of nepionic to adult shells can assist in reconstruction of the conditions of deposition. When a molluscan population is suddenly wiped out by a suffocating influx of sediment or for some other reason, the proportion of nepionic specimens is unusually high.

(3) The shells are often worn, due to transport, or to washing up and down the beach. Shells in a beach ridge are usually worn and broken, those from the beaches worn, while those deposited in deeper waters show only signs of transport or are complete.

(4) In marine shell beds there are numerous examples of other forms of life besides those used for food by the aborigines, such as corals, calcareous worm tubes, polyzoa and calcareous algæ.

(5) On the negative side, it may be said that there are no evidences of fire, no rich intermingled bone fauna, and no artefacts in the emerged shell beds.

The Aborigines and Sand.

Kenyon (1912) drew attention to the aborigines' preference for sand as sites for coastal middens. He wrote: "Camps are generally found on sand hills and rises where such exist and on the loosest portions of them. In fact, wherever blown sand occurs, one may look with confidence for aboriginal remains. The exceptions to the sandy camps are the 'oven mounds'" (p. 99). Keble (1928) came to the same conclusion after his survey of the Mornington Peninsula, and it is true within the writer's experience. How far this is true round the coasts of Australia one is not in a position to say, but comment by authors would be enlightening. Emerged shell beds of both sandy and muddy facies occur, of course, and if it could be established that aborigines always sought out the sandy sites, it would be a helpful generalization for both ethnologists and geologists.

Acknowledgement

I am indebted to Mr. D. J. Tugby, B.Sc., Ethnologist at the National Museum, for reading the manuscript.

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E. D. GILL.

OBITUARY:

Mr. GEORGE W. WATKINS

In the death of Mr. George Watkins in 1949, the Society lost a most enthusiastic and helpful member of its Council. He became a member of the Society in 1935, was Honorary Secretary from 1940 till 1943, and a Councillor from 1943 to 1949.

George Watkins was born in Hobart. His interest in writing found expression whilst he was still a schoolboy, when he began contributing paragraphs to the *Daily Post.* His first job was in the Department of Education, where he remained until he was twenty-one. He often spoke of his great interest in the Tasmanian aborigines to the Director, Mr. McPhee, who took a personal interest in his career. He left Tasmania to become Editor of the *Horsham Times*, thus becoming one of the youngest editors of a newspaper in Victoria. His next move was to the *Melbourne Age*, on which he served as a reporter for ten years, ultimately specializing in political matters. After a brief period with *Cable Services* in Queensland, he became Political Editor of *The Sydney Morning Herald*, and here he spent another decade of his life. In 1937 he became a parliamentary reporter at Parliament House, Sydney, where he remained until his death.

Although golf and gardening were his hobbies, his main relaxation was reading. He did not write on anthropology, but he was intensely interested in the subject. This interest was centred mainly in the Tasmanian aborigines, about whom he assembled a fine library, which included many reproductions of early illustrations of these natives. He was also greatly interested in the welfare and future of the Australian Aborigines. His cheerful manner and warm enthusiasm are well known to his wide circle of friends, to whom his sudden death was a great shock. To Mrs. Watkins we extend our deepest sympathy.

F. D. MCCARTHY.

PROCEEDINGS OF SOCIETIES:

Annual Report of the Anthropological Society of New South Wales, 1950. *Summary of the report delivered at the Annual Meeting of the Society, 28th November, 1950.*

The Council has much pleasure in submitting to members the twenty-second Annual Report for the year ended 30th September, 1950.

Total membership is now 145, comprising one benefactor, four life members, seven honorary life members and 132 ordinary members.

Miss Dorothea Mackellar became the Society's first benefactor.

During the year the following new members were elected: Mr. J. R. Ryan, Miss J. Watkins, Mr. R. K. Rose, Mr. D. B. Raymond, Mr. Byran Mansell, Mr. A. E. Fordham, Mr. E. K. Houison, Miss J. Craig, Mr. R. E. Booher, Mr. K. Mayfield and Mr. C. Draper.

Four members resigned, and we regret to announce the death of one member, Mrs. E. F. Pollock.

Six general meetings were held at the Department of Anthropology, University of Sydney, at which the following lectures were delivered:

1949:

November 1st.—" Aboriginal Woman," by Mrs. Catherine Berndt, M.A.

December 6th.—Annual General Meeting. Presidential Address entitled " Aboriginal Religious Practices," by Dr. A. Capell, M.A., Ph.D.

1950:

February 7th.—" Aboriginal Archæology," by Mr. F. D. McCarthy, Dip.Anth.

March 28th.—" The Native Peoples of Sarawak," by Mr. R. H. Morris, F.R.G.S.

May 16th.—" Aboriginal Physical Types in Arnhem Land," by Dr. N. W. G. Macintosh, M.B., B.S.

July 25th.—" Magic and Religion in Arnhem Land," by Mr. Ronald Berndt.

Ten Council meetings were held. The vacancy caused by the resignation from Council of Mr. D. S. Wylie was filled by Miss Jean Craig.

Two numbers of the Society's journal MANKIND were published: Vol. IV, No. 4, in May, and Vol. IV, No. 5, in September. The interstate and overseas subscription and exchange list now totals 64. To publicize MANKIND abroad a printed circular was posted to selected overseas institutions during the latter part of the year. Several incomplete sets were sold, but the prohibitive cost of reproducing back numbers is still preventing Council from fulfilling its orders for complete sets.

The Society's first occasional paper, " Aboriginal Religious Practices," by Dr. A. Capell, was published during the year and distributed to members and several outside interested bodies.

The Society's annual prize of £2 2s. for the student submitting the best essay in Anthropology III, University of Sydney, was awarded this year to Miss Jennifer Woods, B.A.

N.S.W. Council handed over the administration of the affairs of the Australian Anthropological Association to the Anthropological Society of Queensland for the current biennial period. It is regretted that the affiliated Societies did not reach unanimous agreement on the question of seeking permission to affix the title " Royal " to the Association—a resolution submitted by N.S.W. Council during its term of office.

The draft bill for the Protection and Preservation of Aboriginal Relics submitted to the Premier of New South Wales by Council in 1949 is still under consideration, and Council hopes that before long it will be able to report progress towards the implementation of this legislation.

Council's recommendation that an area of land within the Hawkesbury and Macdonald River and Mangrove Creek region be declared a National Park was submitted to the Minister for Lands some time ago and is still under consideration. We understand that further consideration will be given to the proposal when the District Surveyor's report is received.

Our thanks are extended to Professor Elkin for the use of his own and the Department's rooms for the year's lecture programme, and we also wish to thank the Honorary Auditor, Mr. D. R. Wylie, for his work on the Society's balance sheet and his audit.

Council is pleased with the year's achievements. Its Editor has produced two numbers of MANKIND containing articles of a very high standard on a wide variety of subjects within our field. The lecture programme was planned as a series on the Australian Aborigine, and each lecture was delivered by an acknowledged authority who had carried out original research on his subject. Collectively the series added much that was valuable and interesting to our store of knowledge of our native people. Attendances at all general meetings were good, averaging 40 members and guests. It is a matter of some concern, however, that our net gain in membership during the year was only six. If the Society is to maintain or, as it hopes to, widen its scope of activities, it must be supported by a strong and growing membership.

REVIEW :

The Children of Hari : A Study of the Nimar Balahis in the Central Provinces of India. *By Stephen Fuchs. Verlag Herold, Vienna,* 1950, *XVIII,* 463 *pp., 22 plates.*

This is an intensive sociological study, not of an aboriginal tribe, but of a very low untouchable caste of Central India known as the Balahis. The author has lived among these people for over ten years, speaks their language and has come to know them as intimately or perhaps more intimately than any other European observer has come to know either them or any other of the sixty million members of India's depressed classes.

It is indeed surprising that we should have had to wait until the middle of the 20th century for the first adequate scientific account of the culture of such an important section of the Indian people. Mahatma Gandhi realized that the problem of the untouchables was perhaps India's greatest problem but with the exception of Brigg's book on the Chamars and Aiyappan's on the Nayadis of Malabar and this excellent study of the Balahis by Fuchs, social anthropologists working in the Indian field have made no contribution to the solution of the problem at all.

In the opinion of the reviewer, the contribution which they can make is fundamental. Unless and until those who are responsible for the government of India provide themselves with completely factual and detailed studies of the economic, social and religious life of the untouchable castes, they cannot even begin to solve the problem of assimilating these people into the social and political life of the country.

The subjects of this study are among the most unprepossessing specimens of Indian humanity and it is to the credit of the author that out of such material he has created a warm and interesting picture, full of life and meaning and sympathy. It was a forbidding task to even attempt to reproduce the pattern of Balahi life but Stephen Fuchs has succeeded in doing so in this book. It is written in that scholarly, careful style so characteristic of workers trained in Continental schools of anthropology. Although bursting with information, the book is not overladen with unimportant facts as many such treatises are. All in all, it is a good piece of anthropological reporting and we are indebted to Professor Koppers of the University of Vienna for sponsoring its publication and, what is more to the point, its translation into the English language.

F. L. S. BELL.

CORRESPONDENCE, NOTES AND NEWS:

Aboriginal Net Making.

Sir,

In the February, 1950, number of MANKIND, Mr. H. G. Lamond has given a most interesting description of methods of net-making practised by natives of the Diamantina and Cooper Creek. He identifies with the plant *Psoralea badocana* the flax-like fibre used in the making of the nets. This I believe to be an outright mis-identification.

During the 1934 expedition arranged by the Board for Anthropology at the University of Adelaide the true native flax plant was found growing in abundance on the Diamantina, near Pandi Pandi. Its name is *Lavatera plebeja* Sims., sometimes called Australian Hollyhock, a member of the Mallow family. After rain has fallen the *Lavatera* grows in thick luxuriant patches, often appearing lush green—like a field of corn; its Dieri name is ['wilti]. Among the Dieri, bundles of stems of ['wilti] are retted in water. After about three days the soaked bundles are buried in hot sand and allowed to become half dry, then soaked again. The soaked stems are beaten with sticks. The fibre is then stripped off from each stem, using the finger nails. Working the strippings between the hands removes the epidermis and leaves a strong fibre. This is twisted on their thighs by men to form a two-stranded string. The fibre is strong, and is made up into both fishing- and emu-trapping nets. The last named may be upward of 55 metres in length, 84 cm. wide and with a mesh of 23 cm. A fine emu net with the above dimensions is in the South Australian Museum; it came from the Darling River at a date prior to 1859; it is believed to have been found lying in a cave. Fish nets from the Frew River are also present, together with stake and hooped bag nets from the Warburton River.

All the original native cords examined from this area, as from all other areas in Australia, are composed of either single- or two-ply twists; they are never three- or more stranded, as in European cords and strings. It would thus appear from Mr. Lamond's account of the three-stranded string that the white man Coogera Jack, not only locally forced "improvements" in the methods of twine-making, but also introduced among his natives a three-stranded type of European twine.

The making and using of nets evidently was well established among the natives of southern South Australia prior to the coming of Europeans. G. F. Angas (*South Australia Illustrated*, 1847, plate 21) figured a seine fishing net "between 20 and 30 feet in length" in use near Rapid Bay. In the vicinity of this depicted scene N. B. Tindale

and C. P. Mountford (*Records of the South Australian Museum*, 5, 1936) found strips of fishing net used as part of the wrappings of the desiccated body of a woman buried in Kongarati cave. During their excavations nine fragmentary pieces of netting were obtained, with meshes ranging between 1·0 and 2·5 cm.

A hooped net of a mesh of 2·5 cm., called ['kandaraŋku], was in use by the Tanganekald along the Coorong in South Australia. Recently also it has been noticed that on a rather well preserved skull (A.25351) in the South Australian Museum, from the Coorong, there remains the imprint of a net of this diameter mesh. The skull while still covered with flesh, was supported by such a net and the marks remain as traces on pieces of dried epidermis and as a stain on the bone over the parietal portions of the skull. Another piece of netting made into a bag and with a mesh of 8 cm. was found around the mummy bundle of a child found at Fromm Landing on the Lower Murray River by H. L. Sheard (*Transactions of Royal Society of South Australia*, LI, 1927, pp. 173-176). This bundle had associated with it a single white quartz *pirri* flake. This *pirri* was not found in the grass of the bundle until after the original paper was published; the indication it affords possibly throws back the use of nets to the Pirrian Period in aboriginal culture.

An unpublished description by E. B. Scott, summarized in somewhat abbreviated fashion here, describes the net in use about the year 1841 along the Murray River. It was a bag net, supported on a look of *Polygonum* stem drawn into a U-shape with a string. Its method of use was as follows:

At the spawning season the female Murray codfish entered deep erosion cavities up to six and seven feet deep which lie below water level along the limestone cliffs of the Murray. Male codfish followed to fertilize the eggs. Three natives worked together to catch the fish. Carrying the net they drifted silently downstream to the cliff in a canoe. Each of the cavities was well known to them and might be up to ten or fifteen feet under water. When close to a mark placed above on the cliff, indicating the exact position of the under-water cavity, the leading fisherman and a companion dropped overboard and dived down with the hoop net; the fisherman placed his net before the hole while the companion made a splashing noise or disturbance with his hands. The frightened fish darted out into the net. The net and frame doubled together, and the two rose to the surface, where the third fisherman, in the canoe, speared the quarry.

Scott calls this net *kan de ɾunkoo*, which is similar to the Tanganekald name for their hooped net.

The reference to fibre of *Psoralea* in Lamond's account is of interest since it reminds us that at least one species of this genus, principally perhaps *P. eriantha*, Bentham, yields a short woolly white fibre which is made into a wool-like twist and employed by the Dieri in the making of circular mats ['kumani], rectangular mats ['mirimiri], carrying bags, and such ceremonial objects as the ['kurkipiːa], a large string-figure, like a frame-aerial, worn on the head. Unlike the *Lavatera* fibre, it is not strong enough for use in nets.

NORMAN B. TINDALE.

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OBJECTS.

(*a*) To promote the science of Anthropology.
(*b*) To hold biennial conferences of delegates from affiliated societies to deal with matters affecting affiliated societies generally, or the science of anthropology.
(*c*) To take public and official action in the interests of anthropology, as may be deemed desirable.
(*d*) To encourage affiliated societies to co-operate in every possible way.

The Anthropological Society of N.S.W. as such is not responsible for any opinion or declaration published in this magazine, by whomsoever expressed, unless specifically stated to be so by the Editor.

All communications, MSS., and proposed advertisements to be addressed to Mr. F. L. S. Bell, M.A., Editor, City of Sydney Public Library, George Street, Sydney.

Persons interested in the work of the Society please address correspondence to the Hon. Secretary.